

EPA Registration No.  
39967-137  
Vol. 9

**Receipt for Section 3**

S: 1001216 Milestone Email: ellen.baldassare@lanxess.com

Regulatory Type: Product Registration - Section 3 Resubmission: ☐ Yes ☒ No

Application Type: Amendment Fee For Service: ☐ Yes ☒ No

Company: 39967 LANXESS CORPORATION Billable: ☐ Yes ☒ No

Risk Manager: Antimicrobials Division, Risk Management Team 34

Product #: 39967-137 Product Name: VIRKON S

Override#:

Me Too Section3: Me Too Product Name:

Application Date: 24-Mar-2017 OPP Rec'd Date: 24-Mar-2017

Front End Date: 27-Mar-2017 Risk Manager Send Date:

FFS Due Date: Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:

Portal submission pkg# 18332. Notification for abn per prn 98-10.

Form A: ☐ Signature Date: Form B: ☐ Signature Date:

New Ingredient Request Date:

New Ingredient Received Date:

Receipt Content Des

View/Edit

Print Letter

Enter More Information

Tracking

332  
Imad M.



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ISB In Processing : 39967-137 S1001216 2017-03-27

Description: 39967-137 S1001216 2017-03-27

From: Doc Admin

Received: 3/28/2017 8:07 AM

WorkFlow Instructions:

**cd\_18332\_1001216 : Comments**

<u>Comment</u>	<u>Author</u>	<u>Date</u>
NON-PRIA	Leavy, Karen	3/28/2017 8:06 AM
NOTIFICATION ( Y or N ) ?		
RESUBMISSION ( Y or N)?		
FAST TRACK AMENDMENT ( Y or N)? Y		

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[A](#)



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number 39967-137	2. EPA Product Manager Jacqueline Hardy	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Virkon S	PM# Team 34	
5. Name and Address of Applicant (Include ZIP Code) Lanxess Corporation 111 RIDC Park West Drive Pittsburgh, PA 15275-1112 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification of Alternate Brand name: "Trifectant™ Broad Spectrum Disinfectant"

Notification of ALTERNATE BRAND NAME in accordance with PR Notice 98-10

"This notification is consistent with the provisions of PR notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA."

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
* Certification must be submitted				<input type="checkbox"/> Plastic	
If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container	<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 10lb, 9oz, 6lb 12oz		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Ellen M. Baldassare	Title Regulatory Affairs and Product Stewardship Consultant	Telephone No. (Include Area Code) 470-747-2488
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		8. Date Application Received (Stamped)
2. Signature 	3. Title Regulatory Affairs and Product Stewardship Consultant	
4. Typed Name Ellen M. Baldassare	5. Date March 24, 2017	

LANXESS Corporation

March 24, 2017

US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Hardy (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**Subject: Notification of Alternate Brand Name Pursuant to PR Notice 98-10:  
Virkon™ S (EPA Reg. No. 39967-137)  
Alternate Brand Name: Trifectant™ Broad Spectrum Disinfectant**

Dear Ms. Hardy,

In accordance with PR Notice 98-10, I am notifying the Agency of one (1) alternate brand name for Lanxess Corporation's Virkon™ S (EPA Reg. No. 39967-137). The proposed alternate brand name is "Trifectant™ Broad Spectrum Disinfectant". In support of this notification is the following:

- Application for Pesticide Registration (EPA form 8570-1)—Dated March 24, 2017

Thank you for your assistance with this matter. Please feel free to contact me at 470.747.2488 or email me at [Ellen.Baldassare@Lanxess.com](mailto:Ellen.Baldassare@Lanxess.com) if you have any questions.



Ellen M. Baldassare  
Product Stewardship and Regulatory Specialist  
470-747-2488  
[Ellen.Baldassare@Lanxess.com](mailto:Ellen.Baldassare@Lanxess.com)

LANXESS Corporation  
Ellen Baldassare  
Actives & Disinfection

Experimental Station  
200 Powder Mill Road  
Building 402  
Wilmington, DE 19803

Phone 470-747-2488  
[Ellen.Baldassare@lanxess.com](mailto:Ellen.Baldassare@lanxess.com)

[www.us.lanxess.com](http://www.us.lanxess.com)

Enclosures

DOCUMENT 17

## Rivas, Lorena

---

**From:** ellen.baldassare@lanxess.com  
**Sent:** Wednesday, April 26, 2017 5:30 PM  
**To:** Rivas, Lorena  
**Subject:** RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

Hi Lorena

I appreciate the note, I will admit I have not had a chance to match up the list you sent with my files as I am traveling internationally right now. I will go through and make sure I can match them up to all the CSFs I have, I believe that it will hopefully be straightforward now with the list you compiled and will follow up with any questions when you return in July.

I had one unrelated question, I had an ABN that I recently requested for 39967-138 (Different product). The ABN now shows up in PPLS under the product listing so I guess it was approved but I did not receive an approval letter. Do you happen to know who in team 34 would have worked on this and if I can get a copy of the official approval letter for the ABN--- some of the state authorities will ask me for a copy of the letter it when I go to do registrations in the different locals.

Thanks again for all your help and I wish you the best for your leave time and really appreciate the advance notice of it.

Best Regards/Mit freundlichen Grüßen,

Ellen Baldassare

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E-mail: [ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)  
Website: <http://www.lanxess.com>

---

**From:** "Rivas, Lorena" <[Rivas.Lorena@epa.gov](mailto:Rivas.Lorena@epa.gov)>  
**To:** "ellen.baldassare@lanxess.com" <[ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)>,  
**Date:** 04/26/2017 01:57 PM  
**Subject:** RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

---

Hi Ellen.

I wanted to touch bases with you regarding the list of CSF's I generated for you last week, for Registration No. 39967-137. I haven't heard from you and I wanted to also informed you starting May 1 thru July 5<sup>th</sup>, I will be out of the office

On Leave. My last day at the office will be tomorrow.

If we don't speak, before I leave you can reach me upon my return.

Regards,

Lorena

---

**From:** [ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com) [<mailto:ellen.baldassare@lanxess.com>]  
**Sent:** Monday, April 10, 2017 2:55 PM

To: Rivas, Lorena <Rivas.Lorena@epa.gov>

Subject: RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

Hi Lorena

Have you had a chance to get back to the CSFs for the Virkon S product? I also had a question, I had submitted a notification for an ABN for EPA 39967-138 and have seen the new ABN now listed on PPLS but had not gotten an acceptance letter from the agency. Is there a way to get an official approval letter as some state registrations will ask for it.

Thanks

Best Regards/Mit freundlichen Grüßen,

Ellen Baldassare

---

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Website: <http://www.lanxess.com>

----- Forwarded by Ellen Baldassare/LXVGZ/USERS/LANXESS on 04/10/2017 02:53 PM -----

From: Ellen Baldassare/LXVGZ/USERS/LANXESS  
To: "Rivas, Lorena" <Rivas.Lorena@epa.gov>,  
Date: 02/27/2017 04:41 PM  
Subject: RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

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Hi Lorena

Thanks for the reply, I certainly understand you all must be very busy right now! I appreciate your help!

Best Regards/Mit freundlichen Grüßen,

Ellen Baldassare

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To: "[ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)" <[ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)>,  
Date: 02/27/2017 04:33 PM  
Subject: RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

---

Hi Ellen,

Thank you for sending me the updated list of CSF. I will hopefully get this done by this week.  
Thank you for your understanding and yes lots and lots of changes.

Have a nice evening.

Lorena

**From:** ellen.baldassare@lanxess.com [mailto:ellen.baldassare@lanxess.com]  
**Sent:** Monday, February 27, 2017 4:30 PM  
**To:** Rivas, Lorena <Rivas.Lorena@epa.gov>  
**Subject:** RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

Hi Lorena

I'm just following back around on this so I don't forget what's going on. I'm sure you're busy right now with all the changes at EPA and just wanted to make sure you got my email.  
Thanks!

Best Regards/Mit freundlichen Grüßen,

Ellen Baldassare

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Website: <http://www.lanxess.com>

----- Forwarded by Ellen Baldassare/LXVGZ/USERS/LANXESS on 02/27/2017 04:29 PM -----

**From:** Ellen Baldassare/LXVGZ/USERS/LANXESS  
**To:** "Rivas, Lorena" <Rivas.Lorena@epa.gov>  
**Date:** 02/13/2017 09:50 AM  
**Subject:** RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

---

Hi Lorena

My apologies for the delay, I worked on this last week and never got a chance to send it. Attached are the CSFs I have been able to piece together from the paper trail left behind by my colleague. I included CSFs dated Aug 2, 2007, but they may have been superseded in 2009, I'm not 100% clear.

Best Regards/Mit freundlichen Grüßen,

Ellen Baldassare

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To: "[ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)" <[ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)>.  
Date: 02/07/2017 02:05 PM  
Subject: RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

---

Hello Ellen,

Can you please provide the Agency with what you currently have in file. Therefore I can compare, and begin to provide you with the missing CSFs.

Let me know if you have any questions.

Thanks,

Lorena

**From:** [ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com) [<mailto:ellen.baldassare@lanxess.com>]  
**Sent:** Thursday, February 02, 2017 9:32 AM  
**To:** Rivas, Lorena <[Rivas.Lorena@epa.gov](mailto:Rivas.Lorena@epa.gov)>  
**Subject:** Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

Hi Lorena

I tried contacting Jacqueline about this a few weeks but figure she is pretty busy right now and hadn't heard back anything. I am trying to get a list of the agency's approved CSFs (Just titles of CSF and date of form) for EPA Reg. 39967-137, Virkon S. The product was recently transferred (along with myself) to Lanxess Corporation and used to go by EPA 71654-6. In the recent past you had sent me something similar after I update CSFs for another product (EPA 71654-7, now EPA 39967-138 following company transfer) and was hoping I could get something similar for Virkon S.

Mainly this is because I am trying to track what my predecessor did with naming and renaming the titles of CSFs, he had some CSFs in review and then renumbered them in the middle of the review with a new submission to the EPA but it remains unclear to me what the "Official" titles are and I also don't want to resubmit CSFs already on file or get the naming conventions on file mixed up when making updates. Again, I do not need copies of the CSFs themselves, just the titles and dated date on the forms so I can match them to all the CSFs that my predecessor left mixed together in our files!

Any help you could provide would be greatly appreciated!

Best Regards/Mit freundlichen Grüßen,

Ellen Baldassare

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Regulatory Affairs and Product Stewardship Consultant  
111 RIDC Park West Drive  
Pittsburgh, PA 15275  
USA

## Rivas, Lorena

---

**From:** Rivas, Lorena  
**Sent:** Friday, April 21, 2017 4:03 PM  
**To:** 'ellen.baldassare@lanxess.com'  
**Subject:** RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)  
**Attachments:** CSF's for Registration No. 39967-137.pdf

Hi Ellen.

Attached you will find the list, I generated of all the Approved Basic/Alternates for Virkon S Product, Registration No. 39967-137. Please look over the list and let me know if you have any questions.

Have a nice weekend.

Lorena

**From:** ellen.baldassare@lanxess.com [mailto:ellen.baldassare@lanxess.com]  
**Sent:** Monday, April 10, 2017 2:55 PM  
**To:** Rivas, Lorena <Rivas.Lorena@epa.gov>  
**Subject:** RE: Request for list of CSFs on file as approved for 39967-137 (Formerly 71654-6)

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Ellen Baldassare

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(o) 470-747-2488  
E-mail: [ellen.baldassare@lanxess.com](mailto:ellen.baldassare@lanxess.com)  
Website: <http://www.lanxess.com>

April 21, 2017

Agency Approved Confidential Statement of Formulas (CSF's) for Registration  
No.39967-137

<b>Basic Formulation</b>	dated	04/17/2006
Alternate Formulation	dated	10/10/2006
Alternate Formulation #1	dated	06/17/2009
Alternate Formulation #1.1	dated	06/17/2009
Alternate Formulation #2	dated	06/15/2009
Alternate Formulation #2A	dated	05/04/2009
Alternate Formulation #3	dated	06/17/2009
Alternate Formulation #4	dated	06/17/2009
Alternate Formulation #5	dated	06/08/2009
Alternate Formulation #6	dated	06/17/2009
Alternate Formulation #6.1	dated	06/17/2009
Alternate Formulation #6.1A	dated	06/14/2011
Alternate Formulation #6.1H	dated	06/14/2011
Alternate Formulation #7	dated	06/17/2009
Alternate Formulation #7.1	dated	06/17/2009
Alternate Formulation #7.1A	dated	06/14/2011
Alternate Formulation #7.1H	dated	06/14/2011
Alternate Formulation #8	dated	06/17/2009
Alternate Formulation #8.1	dated	06/17/2009
Alternate Formulation #9	dated	06/17/2009
Alternate Formulation #9.1	dated	06/17/2009
Alternate Formulation #10	dated	06/17/2009
Alternate Formulation #10.1	dated	06/17/2009
Alternate Formulation #11	dated	06/17/2009

Alternate Formulation #11.1 dated 06/17/2009  
Alternate Formulation #11.1Adated 06/14/2011  
Alternate Formulation #11.1Hdated 06/14/2011  
Alternate Formulation #12 dated 06/17/2009  
Alternate Formulation #12.1 dated 06/17/2009  
Alternate Formulation #13 dated 07/13/2009  
Alternate Formulation #14 dated 07/13/2009  
Alternate Formulation #15 dated 07/13/2009  
Alternate Formulation #15.1 dated 07/13/2009  
Alternate Formulation #16 dated 07/13/2009  
Alternate Formulation #17 dated 07/13/2009  
Alternate Formulation #18 dated 07/13/2009



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

October 24, 2016

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

MS. LUANNE JERAM  
LANXESS CORPORATION  
111 RIDC PARK WEST DRIVE  
PITTSBURGH, PA 15275-1112

Dear Ms Jeram:

Subject: Transfer of Pesticide Registrations and Data From Company Number **71654**  
to Company Number **39967**

Pursuant to your request in your letter and transfer agreement of September 09, 2016,  
we have approved the transfer of the following registrations from **THE CHEMOURS  
COMPANY FC, LLC**, company number **71654** to **LANXESS CORPORATION**, company  
number **39967**.

The effective date of these changes is the date of this letter.

<u>Registered Products</u>	<u>Old EPA Reg. No.</u>	<u>New EPA Reg. No.</u>
<b>VIRKON S</b>	<b>71654-6</b>	<b>39967-137</b>
<b>RELYON MULTIPURPOSE DISINFECTANT CLEANER</b>	<b>71654-7</b>	<b>39967-138</b>
<b>OXONE CDRW-D5</b>	<b>71654-9</b>	<b>39967-139</b>
<b>OXONE CDRW-D1</b>	<b>71654-10</b>	<b>39967-140</b>
<b>ANTEC(TM) HYPEROX(TM)</b>	<b>71654-14</b>	<b>39967-141</b>

You should indicate the new company designation, new EPA Registration Number and new Establishment Number (if it has changed) on the labeling at the next printing which should occur no later than 18 months after the effective date of this transfer. After 18 months, any product released for shipment must bear the new Registration Number and Establishment Number. If you intend to use the labels which currently appear on the transferor's product after the effective date of the transfer, but within the 18 month grace period, you must maintain



complete and accurate records which identify by batch number, lot number, or other suitable description the quantities of such product bearing the transferor's label. Each container or package bearing the transferor's label which is released after the effective date of product registration transfer, must be clearly and accurately marked with the batch number, lot number or other descriptive designation used to identify the product in your records.

Supplemental distribution agreements of registered products do not transfer with the Section 3 registration. It is your responsibility as the registrant to notify any and all supplemental distributors of the transferred product(s) of this transfer agreement. If you wish to enter into supplemental distribution agreements of your product(s) under this new registration, the form "Notice of Supplemental Distribution of a Registered Pesticide Product," EPA Form 8570-5, must be submitted to the Agency for each supplemental distributorship.

You are required to contact your local EPA Regional Office to determine what effect this transfer of pesticide registrations has on the pesticide production establishment registration.

It will not be necessary to submit labeling for review if the only changes are in the company designation and the EPA Registration Number. Other changes in the product and/or labeling may require EPA review and approval prior to distribution or sale of the product containing the new registration number. In any correspondence on these products always refer to the U.S. EPA Registration Number listed above.

The transferred registration will have the same status under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, 7 USC 136 et seq., as it had prior to the approval of this transfer.

When registrations are transferred from one company to a second company, all restrictions, data requirements, conditions (suspensions), and deadlines existing on the registrations are transferred with the registrations. The new company is responsible for adhering to or complying with all such restrictions, etc. on the acquired products.

With regard to deadlines, the transferee company is responsible for submitting all required data according to the schedules already established for the acquired products. Failure to do so will result in the issuance of a Notice of Intent to Suspend. Requests from transferee companies for additional time to submit, because they acquired the registration(s) after the 3(c)(2)(B) request was issued will not be granted. If a transferee company has other valid reasons for delays in the testing which were clearly outside of their control, then such requests for time extensions will be considered in accordance with the established procedures. Transfers occurring while a 3(c)(2)(B) request is being issued or during the 90-day response time are subject to the same conditions expressed above.

Registration is in no way to be construed as an endorsement or approval of these products by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with FIFRA.

Furthermore, the transfer of the subject registrations is approved under the condition that the annual maintenance fee obligation has been fully satisfied. The annual maintenance fee

is based solely on the total number of active section 3 and section 24(c) registrations held by the transferor. If the annual maintenance fee has not been fully satisfied, the transferee and transferor will be notified to comply within a specified time period or the affected registrations may be canceled.

The Agency acknowledges it has received a request for data transfer dated September 09, 2016 to transfer data ownership from the transferor to the transferee. The data transfer is effective the date of this letter. After this date **LANXESS CORPORATION** will be considered the data owner. This action will not automatically reflect on the Data Submitters List. If you want to be added to the Data Submitters List, you must submit a request by courier to:

Document Processing Desk (DSL)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Room S-4900, One Potomac Yard  
2777 S. Crystal Drive  
Arlington, VA 22202

You may also fax it to our secure FAX at (703) 305-7670.

By copy of this letter we are informing the transferor of these changes. If you have any questions about this transfer approval please contact Louis Vaughn at (703) 308-8114.

Sincerely,



Steve Robbins, Chief  
Information Services Branch  
Information Technology & Resource Management Div. (7504P)

cc: MS. SARA E. LYONS  
THE CHEMOURS COMPANY FC, LLC  
1007 MARKET STREET  
WILMINGTON, DE 19898

RE: L\_71654\_RAD\_39967\_10\_24\_2016

**APPENDIX A – Data Included In Transfer (The Chemours Company FC, LLC to Lanxess Corporation)**

Reference: 40 CFR § 152.98 (a) (3)

MRID	Name of Study	Person or Lab that Conducted the Study	Submission Date	Exclusive Use	Exclusive Use ends
45910200	DuPont Chemical Solutions Enterprise (2003) Submission of Efficacy and Product Chemistry Data in Support of the Amended Registration of Virahol Hospital Disinfectant/Cleaner & Instrument Presoak. Transmittal of 4 Studies.	E. I. du Pont de Nemours and Company	4/16/2003	N	N/A
45910201	Mai, T. (2003) H-25618/H-25619: Virucidal Effectiveness Test: Hepatitis A Virus: Final Report: Lab Project Number: 473-104; DCSE-2003-007.	MicroBioTest, Inc	4/16/2003	N	N/A
45910202	Mai, T. (2003) H-25618: Confirmatory Virucidal Effectiveness Test: Using Bovine Viral Diarrhea Virus (BVDV) (Surrogate for Human Hepatitis C Virus): Final Report: Lab Project Number: 473-103; DCSE-2003-006	MicroBioTest, Inc	4/16/2003	N	N/A
45910203	Mai, T. (2003) H-25618/H-25619: Virucidal Effectiveness Test: Using Bovine Viral Diarrhea Virus (BVDV) (Surrogate for Human Hepatitis C Virus): Final Report: Lab Project Number: 473-102; DCSE-2003-005.	MicroBioTest, Inc	4/16/2003	N	N/A
45910204	Bieber, B. (2003) Supplemental Information to Provide Chemical Identity of H-25618 and H-25619: Lab Project Number: DCSE-2003-009.	E. I. du Pont de Nemours and Company	4/16/2003	N	N/A
46013800	Dupont Chemical Solutions Enterprise (2003) Submission of Efficacy Data in Support of the Amended Registration of Virahol Hospital Disinfectant Cleaner & Instrument Presoak. Transmittal of 2 Studies.	E. I. du Pont de Nemours and Company	6/13/2003	N	N/A
46013801	Ijaz, M. (2003) H-25618/H-25619: Virucidal Effectiveness Test Using Duck Hepatitis B Virus: Final Report. Project Number: 473/105, DCSE/2003/008.	MicroBioTest, Inc	6/13/2003	N	N/A
46013802	Pugh, J. (2003) H-25618: Confirmatory Virucidal Effectiveness Test Using Duck Hepatitis B Virus: Final Report. Project Number: 473/106, DCSE/2003/016.	MicroBioTest, Inc	6/13/2003	N	N/A
46498600	E.I. du Pont de Nemours and Company (2005) Submission of Efficacy Data in Support of the Amended Registration of Virkon.	E. I. du Pont de Nemours and Company	3/16/2005	N	N/A
46498601	Hollingsworth, A. (2005) H-26819 and H-26820: Use Dilution Test Supplemental Microorganism (Staphylococcus aureus, MRSA, ATCC 33592): Final Report. Project Number: 473/108, DCSE/2005/002. 473/3/12/29/04.	MicroBioTest, Inc	3/16/2005	N	N/A

46498602	Hollingsworth, A. (2005) H-26819 and H-26820: Use Dilution Test Supplemental Microorganism (Enterococcus faecalis, VRE, ATCC 51299): Final Report. Project Number: 473/109, DCSE/2005/003, 163/4/12/29/04.	MicroBioTest, Inc	3/16/2005	N	N/A
46498603	Hollingsworth, A. (2005) H-26819, H-26820 and H-26836: Sanitizer Test for Non-Food Contact Surfaces: Staphylococcus aureus, Klebsiella pneumoniae: Amended Final Report. Project Number: 473/110, DCSE/2005/004, 473/5/12/29/04.	MicroBioTest, Inc	3/16/2005	N	N/A
46498604	Hollingsworth, A. (2005) H-26819 and H-26820: Use Dilution Test (Escherichia coli 0157: H7, ATCC 43895): Final Report. Project Number: 473/111, DCSE/2005/005, 473/1/01/12/05.	MicroBioTest, Inc	3/16/2005	N	N/A
46498605	Miller, M. (2005) H-26819: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces - Confirmatory Assay (Feline Calicivirus as a Surrogate for Norwalk and Norovirus): Final Study Report. Project Number: A02683, DCSE/2005/006, DUP01122904/FCALJ2.	ATS Labs	3/16/2005	N	N/A
46498606	Ramm, K. (2005) H-26819 and H-26820: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces (Feline Calicivirus as a Surrogate for Norwalk and Norovirus): Final Study Report. Project Number: A02684, DCSE/2005/007, DUP01122904/FCALJ1.	ATS Labs	3/16/2005	N	N/A
46498607	Miller, M. (2005) H-26819 and H-26820: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces (Respiratory Syncytial Virus): Final Study Report. Project Number: A02682, DCSE/2005/008, DUP01122804/RSV.	ATS Labs	3/16/2005	N	N/A
46498608	Miller, M. (2005) H-26819 and H-26820: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces (Influenza A Virus): Final Study Report. Project Number: A02681, DCSE/2005/009, DUP01122804/FLUA.	ATS Labs	3/16/2005	N	N/A
46536900	E. I. du Pont de Nemours and Co. (2005) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of CDRW-D5. Transmittal of 9 Studies.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536901	Finlay, C. (2005) CDRW-D5: Acute Oral Toxicity Study in Rodents: Up-and-Down Procedure. Project Number: 15656.834.26750.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536902	Finlay, C. (2005) CDRW-D5: Acute Dermal Toxicity Study in Rats. Project Number: 15656.673.17157.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536903	Stadler, J. (2005) CDRW-D5: Acute Inhalation Toxicity. Project Number: DCSE/2005/016	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A

46536904	Stadler, J. (2005) CDRW-D5: Acute Eye Irritation - Data Waiver. Project Number: DCSE/2005/017.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536905	Finlay, C. (2005) CDRW-D5: Acute Dermal Irritation Study in Rabbits. Project Number: 1008, 15656, 16935.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536906	Hoban, D. (2005) CDRW-D5: Local Lymph Node Assay (LLNA) in Mice. Project Number: DUPONT/16729, 15656, 1234	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536907	Tufano, T. (2005) Product Identity and Composition of CDRW-D5. Project Number: DCSE/2005/011.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536908	Tufano, T. (2005) Enforcement Method to Determine % Active Ingredient in CDRW-D5. Project Number: DCSE/2005/13	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46536909	Sinning, D. (2005) Physical and Chemical Characteristics of CDRW-D5: Physical State, Oxidation/Reduction: Chemical Incompatibility, pH and Bulk Density. Project Number: DUPONT/16895, 3820/02.	Case Consulting Laboratories, Inc.	4/29/2005	N	N/A
46537000	E.I. du Pont de Nemours and Company, Inc. (2005) Submission of Product Chemistry and Toxicity Data in Support of the Application for Registration of CDRW- D1. Transmittal of 10 Studies.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537001	Finlay, C. (2005) CDRW-D1: Acute Oral Toxicity Study in Rodents - Up-and-Down Procedure. Project Number: DUPONT/17269	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537002	Finlay, C. (2005) CDRW-D1: Acute Dermal Toxicity Study in Rats. Project Number: DUPONT/17158.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537003	Stadler, J. (2005) CDRW-D1: Acute Inhalation Toxicity. Project Number: DCSE/2005/014.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537004	Stadler, J. (2005) CDRW-D1: Acute Eye Irritation - Data Waiver. Project Number: DCSE/2005/015.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537005	Finlay, C. (2005) CDRW-D1: Acute Dermal Irritation Study in Rabbits. Project Number DUPONT/16936	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537006	Hoban, D. (2005) CDRW-D1: Local Lymph Node Assay (LLN) in Mice. Project Number: DUPONT/16728.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537007	Tufano, T. (2005) Product Identity and Composition of CDRW-D1. Project Number: DCSE/2005/010.	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537008	Tufano, T. (2005) Analytical Enforcement Method to Determine % Active Ingredient in CDRW-D1. Project Number DCSE/2005/012, C0020/390/01/CW	E. I. du Pont de Nemours and Company	4/29/2005	N	N/A
46537009	Simons, C. (2005) Method Validation of 'Analytical Enforcement Method to Determine % Active Ingredient in Blended Products CDRW-5 and CDRW-1'. Project Number: DUPONT/16893, P0001340.	Exygen Research	4/29/2005	N	N/A

46537010	Sinning, D. (2005) Physical and Chemical Characteristics of CDRW-D1: Physical State, Oxidation/Reduction: Chemical Incompatibility, pH and Bulk Density: Final Report. Project Number: 3280/01, DUPONT/16896.	Case Consulting Laboratories, Inc.	4/29/2005	N	N/A
46546700	E.I. du Pont de Nemours and Co., Inc. (2005) Submission of Product Chemistry Data in Support of the Application for Registration of CDRW-D1. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	5/16/2005	N	N/A
46546701	Lomax, N. (2005) CDRW-D1: Self Certification Statement for the Physical Chemical Properties. Project Number: DCSE/2005/020	E. I. du Pont de Nemours and Company	5/16/2005	N	N/A
46546800	E. I. du Pont de Nemours and Co. (2005) Submission of Product Chemistry Data in Support of the Application for Registration of CDRW-D5. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	5/16/2005	N	N/A
46546801	Lomax, N. (2005) CDRW-D5: Self Certification Statement for the Physical Chemical Properties. Project Number: DCSE/2005/021	E. I. du Pont de Nemours and Company	5/16/2005	N	N/A
46616100	E.I. du Pont de Nemours and Company (2005) Submission of Efficiency Data in Support of the Application for Registration of CDRW-D1. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	8/5/2005	N	N/A
46616101	Urtz, B. (2005) Antimicrobial Efficacy of Potassium Hydrogen Persulfate in Physical Blend Containing Sodium Dichloro-s-triazinetriene: (Escherichia coli, Enterococcus faecium). Project Number: DCSE/2005/025.	E. I. du Pont de Nemours and Company	8/5/2005	N	N/A
46617500	E.I. du Pont de Nemours and Company (2005) Submission of Product Chemistry Data in Support of the Registration of Virkon S. Transmittal of 3 Studies.	E. I. du Pont de Nemours and Company	8/8/2005	N	N/A
46617501	Sinning, D. (2005) H26819: Enforcement Analytical Method: Final Report. Project Number: 3280/03.	Case Consulting Laboratories, Inc.	8/8/2005	N	N/A
46617502	Sinning, D. (2005) Physical and Chemical Characteristics of H26820: Oxidation/Reduction: Chemical Incompatibility, pH and Bulk Density: Final Report. Project Number: 3280/04.	Case Consulting Laboratories, Inc.	8/8/2005	N	N/A
46617503	McEntee, T. (2005) Certified Limits: EPA Reg. No. 71654-6.	E. I. du Pont de Nemours and Company	8/8/2005	N	N/A
46638600	E. I. du Pont de Nemours and Company (2005) Submission of Product Chemistry Data in Support of the Application for Registration of Hyperox. Transmittal of 3 Studies.	E. I. du Pont de Nemours and Company	9/6/2005	N	N/A
46638601	Jones, T. (2005) Product Chemistry: Hyperox.	Delta Analytical Corp.	9/6/2005	N	N/A

46638602	Sinning, D. (2005) Physical and Chemical Characteristics of Antec Hyperox: Oxidation/Reduction: Final Report. Project Number: 3250/01.	Case Consulting Laboratories, Inc.	9/6/2005	N	N/A
46638603	Squire, M. (2004) Antec Hyperox: Stability Trial in Sale Package.	Antec International Ltd.	9/6/2005	N	N/A
46767300	E. I. du Pont de Nemours and Co., Inc. (2006) Submission of Toxicity Data in Support of the Registration of CDRW-D5. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	2/24/2006	N	N/A
46767301	Stadler, J. (2006) CDRW-D5: Acute Inhalation Toxicity. Project Number: DCSE/2006/006	E. I. du Pont de Nemours and Company	2/24/2006	N	N/A
46767400	E. I. du Pont de Nemours and Co., Inc. (2006) Submission of Toxicity Data in Support of the Registration of CDRW-D1. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	2/24/2006	N	N/A
46767401	Stadler, J. (2006) CDRW-D1: Acute Inhalation Toxicity. Project Number: DCSE/2006/005	E. I. du Pont de Nemours and Company	2/24/2006	N	N/A
46808700	E.I. du Pont de Nemours and Company (2006) Submission of Efficacy Data in Support of the Amended Registration of Virkon. Transmittal of 2 Studies	E. I. du Pont de Nemours and Company	4/12/2006	N	N/A
46808701	Gutzmann, K. (2006) H-27069, H-27070, H-27071: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Virus: Avian Influenza (H3N2) Virus (Avian Reassortant): Final Report. Project Number: A03712, DCSE/2006/004, DUP01012606/ AFLU	ATS Labs	4/12/2006	N	N/A
46808702	Jeske, A. (2006) H-27069, H-27070, H-27071: AOAC Use-Dilution Method: Final Study Report. Project Number: DCSE/2006/003, DUP01012606/UD, A03653	ATS Labs	4/12/2006	N	N/A
46938400	E.I. du Pont de Nemours and Company (2006) Submission of Product Chemistry Data in Support of the Registration of CDRW-D5. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	9/21/2006	N	N/A
46938401	Lightcap, E. (2006) Attrition Study and Particle Size Analysis for CDRW-D5. Project Number: DCSE/2006/012. Advantis Technologies, Inc.	Advantis Technologies, Inc.	9/21/2006	N	N/A
46943700	E.I. du Pont de Nemours and Company (2006) Submission of Product Chemistry Data in Support of the Registration of Virkon S. Transmittal of 1 Study	E. I. du Pont de Nemours and Company	9/29/2006	N	N/A
46943701	Sinning, D. (2006) Physical and Chemical Characteristics of H26820: Storage Stability and Corrosion Characteristics. Project Number: 3280/05, DUPONT/17477.	Case Consulting Laboratories, Inc.	9/29/2006	N	N/A
46983500	E.I. duPont de Nemours and Company (2006) Submission of Efficacy Data in Support of the FIFRA 6(a)(2) Data Requirements for Virkon. Transmittal of 1 Study	E. I. du Pont de Nemours and Company	11/13/2006	N	N/A



46983501	Rahme, J. (2006) H-27071: Fungicidal Use-Dilution Method: Trichophyton mentagrophytes (ATCC 9533); H-27071 (Lot 26594); Final Study Report. Project Number: DCSE/2006/021, A04310, DUP01090106/FUD.	ATS Labs	11/13/2006	N	N/A
47009500	E.I. du Pont de Nemours and Company (2006) Submission of Efficacy Data in Support of the Amended Registration of Hyperox. Transmittal of 2 Studies.	E. I. du Pont de Nemours and Company	12/15/2006	N	N/A
47009501	Miller, M. (2004) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Virus: Infectious Bursal Disease Virus: Antec Hyperox: BN 180 and BN 171: Final Study Report. Project Number: AN01011404/IBD, A02053.	ATS Labs	12/15/2006	N	N/A
47009502	Ramm, K. (2003) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Virus: Avian Influenza A Reassortant: Antec Hyperox: BN 3801 1447 and BN 3909 1446: Final Study Report. Project Number: AN01111502/AFLU, A01249.	App'ec Laboratory Services	12/15/2006	N	N/A
47033200	E.I. du Pont de Nemours and Company (2007) Submission of Efficacy Data in Support of the FIFRA 6(a)(2) Data Requirements for Virkon S. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	1/17/2007	N	N/A
47033201	Urtz, B. (2006) Effect of Virkon Aquatic on the Diatoms Skeletonema costatum and Chaetoceros gracilis. Project Number: EMSER/14/06, 4690.	E. I. du Pont de Nemours and Company	1/17/2007	N	N/A
47071800	E.I. Dupont De Nemours and Company (2007) Submission of Efficacy Data in Support of the FIFRA 6(a)(2) Data Requirements for Virkon. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	3/5/2007	N	N/A
47071801	Tester, J. (2007) H-27069, H-27070, and H-27071: Tuberculocidal Activity of Disinfectants: Final Report. Project Number: 473/119, DCSE/2007/002, 4656.	MicrobioTest, Inc.	3/5/2007	N	N/A
47115100	Dupont Chemical Solutions Enterprise (2007) Submission of Environmental Fate Data in Support of the Registration of Virkon. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	4/26/2007	N	N/A
47115101	Powley, C.; Clements, R. (2007) Ion Chromatographic and Iodometric Titration Studies of Test Substance H- 26820. Project Number: DUPONT/22200.	Case Consulting Laboratories, Inc. and E. I. Du Pont De Nemours and Company	4/26/2007	N	N/A
47143400	Dupont Chemical Solutions Enterprise (2007) Submission of Toxicity Data in Support of the FIFRA 6(a)(2) Data Requirements for KMPS. Transmittal of 1 Study.	E. I. du Pont de Nemours and Company	5/31/2007	N	N/A
47143401	Hicks, S. (2007) KMPS: Early Life-Stage Toxicity Test with the Sheepshead Minnow, Cyprinodon variegatus, Under Flow Through Conditions. Project Number: 61459, 215, DUPONT/21116.	ABC Laboratories, Inc.	5/31/2007	N	N/A



47874700	E.I. Dupont de Nemours and Company (2009) Submission of Efficacy Data in Support of the Amended Registration of Virkon. Transmittal of 1 Study	E. I. du Pont de Nemours and Company	10/1/2009	N	N/A
47874701	Miller, M. (2009) II-29310 and II-29311: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Virus: Swine Influenza A (H1N1) Virus: Final Study Report. Project Number: DCSE/2009/015, A08125. DUP01072109/SFLU.	ATS Labs	10/1/2009	N	N/A
49156700	E.I. Dupont De Nemours and Company (2013) Submission of Efficacy data in support of the FIFRA 6a2 Data Requirements for Virkon S and Virkon. Transmittal of 1 study.	E. I. du Pont de Nemours and Company	6/14/2013	N	N/A
49156701	McEntee, T. (2013) Bioassay of Virkon S virucidal disinfectant: Dunatiella tertiolecta Population Inhibition 96 Hours: Perumytilus purpuratus (maico mussels) Mortality 144 Hours: Perumytilus purpuratus (mussels maico) Fixation 144 Hours. Project Number: LB/BIOE/R/05/498, LB/BIOE/R/05/499, LB/BIOE/R/05/500.	University of Concepcion	6/14/2013	N	N/A
49386101	E. I. du Pont de Nemours and Company (2014) Submission of Efficacy, Product Chemistry, and Toxicity Data in Support of the Application for Registration of Virkon LSP Multipurpose Broad Spectrum Disinfectant. Transmittal of 14 Studies.	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49386101	McCall, Y. (2011) DuPont FarmFluid HD ROW - Corrosion Testing. Project Number: DUPONT/ESLYMMFHIDROW/CT.	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49386102	McCall, Y.; Wilkins, K. (2010) FarmFluid HD ROW - Method Validation. Project Number: 2010/DF/I/C/D.	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49386103	Miller, M. (2008) II-28668 and II-28669: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces - Newcastle disease virus - Final Report. Project Number: DCSE/2008/008, A06560, DESE/2008/006.	ATS LABS	6/2/2014	N	N/A
49386104	E.I. duPont de Nemours and Company (2014) Summary of Physical and Chemical Characteristics of Formulations.	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49386105	Farley, T. (2009) II-29152 and II-29153: Use Dilution Test - Aspergillus niger - Final Report. Project Number: DCSE/2009/008, 473/131.	MicroBioTest, Inc	6/2/2014	N	N/A
49386106	Bashir, M. (2009) II-29152 and II-29153: Use Dilution Test - Candida albicans - Final Report. Project Number: DCSE/2009/009, 473/132	MicroBioTest, Inc	6/2/2014	N	N/A
49386107	Farley, T. (2009) II-29152 and II-29153: Use Dilution Test - Trichophyton mentagrophytes - Final Report. Project Number: DCSE/2009/007, 473/130	MicroBioTest, Inc	6/2/2014	N	N/A

49386108	Miller, M. (2009) H-29152 and H-29153: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces - Virus: Avian Influenza A (H3N2) virus (Avian Reassortant) - Final Report. Project Number: DCSE/2009/014, A08127, DUP01042709/AFLU.	ATS LABS	6/2/2014	N	N/A
49386109	Dormstetter, K. (2008) H-28668, H-28669 and H-28581: AOAC Use Dilution Test - Healthcare - Final Report. Project Number: 473/129, DCSE/2008/005	MicroBioTest, Inc	6/2/2014	N	N/A
49386110	Ruhme, J. (2009) H-29152 and H-29153: AOAC Use-Dilution Method - Escherichia coli O157:H7 (ATCC 35150) - Final Report. Project Number: A07858, DCSE/2009/002, DUO01060909/UD.	ATS LABS	6/2/2014	N	N/A
49386111	Miller, M. (2009) H-29152 and H-29153: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces - Virus: Swine Influenza A (H1N1) Virus - Final Report. Project Number: A08207, DCSE/2009/016 DUP01081709/SFLU	ATS LABS	6/2/2014	N	N/A
49386112	McEntee, T. (2014) Virkon LSP Broad Spectrum Disinfectant Bridging and Waiver Request. : Acute Oral Toxicity, Acute Dermal Toxicity, Acute Inhalation Toxicity, Eye Irritation, Skin Sensitization and Skin Irritation. May 1, 2014	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49386113	McCall, Y. (2009) DuPont Farm Fluid HD Row - Stability Study. Project Number: DUPONT/ESLYMM10509FFHDROW	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49386114	McEntee, T. (2014) Virkon LSP Broad Spectrum Disinfectant - Description of Formulation Process	E. I. du Pont de Nemours and Company	6/2/2014	N	N/A
49403700	E.I. DuPont de Nemours and Company (2014) Submission of Toxicity Study in Support of the Application for Registration of VIRKON(R) LSP Multipurpose Broad Spectrum Disinfectant.	E. I. du Pont de Nemours and Company	6/11/2014	N	N/A
49403701	H-28669: Corrositex® In Vitro Test : October 20, 2008 : Carpenter, Carol, E. I. du Pont de Nemours and Company.	E. I. du Pont de Nemours and Company	6/11/2014	N	N/A
49743100	The Chemours Company FC, LLC (2015) Submission of Efficacy and Product Chemistry Data in Support of the Application for Registration of Virkon LSP Multipurpose Farm Disinfectant. Transmittal of H Studies	The Chemours Company FC, LLC.	10/16/2015	N	N/A
49743101	Miller, M. (2009) H-29152 and H-29153: Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces. Virus: Porcine Respiratory and Reproductive Syndrome Virus Project Number: DCSE/2009/013, A08128	ATS LABS	10/16/2015	N	N/A

49743102	Conway, S. (2011) H29845 & H29846 Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Virus: Infectious Bursal Disease. Project Number: DC&F-2010-001, A10225	ATS LABS	10/16/2015	N	N/A
49743103	Miller, M. (2014) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Avian Influenza A (H5N1) Virus; Project Number DC&F-2014-002, A17443	ATS LABS	10/16/2015	N	N/A
49743104	Miller, M. (2014) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Avian Influenza A (H5N1) Virus; Project Number DC&F-2014-003, A17444	ATS LABS	10/16/2015	N	N/A
49743105	Upadhyaya, Ritu (2014) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Newcastle Disease Virus; Project Number: DC&F-2014-006, A17449	ATS LABS	10/16/2015	N	N/A
49743106	Upadhyaya, R. (2014) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Porcine Epidemic Diarrhea Virus; Project Number: DC&F-2014-005, A17450	ATS LABS	10/16/2015	N	N/A
49743107	Upadhyaya, R. (2014) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Porcine Respiratory and Reproductive Syndrome Virus. Project Number: DC&F-2014-004, A17451	ATS LABS	10/16/2015	N	N/A
49743108	Upadhyaya, R. (2014) Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces: Infectious Bursal Disease Virus; Project Number DC&F-2014-008, A17455	ATS LABS	10/16/2015	N	N/A
49743109	Chen, Z. (2015) VIRUCIDAL HARD-SURFACE EFFICACY TEST - Infectious Bursal Disease Virus (Gumboro Disease Virus) (20 MINUTE TEST); Project Number: DC&F-2015-001, 473-135	MicroBio Test, Inc	10/16/2015	N	N/A
49743110	Chen, Z. (2015) VIRUCIDAL HARD-SURFACE EFFICACY TEST - Infectious Bursal Disease Virus (Gumboro Disease Virus) (30 MINUTE TEST); Project Number: DC&F-2015-001, 473-135	MicroBio Test, Inc	10/16/2015	N	N/A
49743111	Baldassare, E. (2015) Virkon LSP Multipurpose Farm Disinfectant- Description of Formulation Process	The Chemours Company FC, LLC	10/16/2015	N	N/A



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

December 1, 2015

Ellen M. Baldassare  
The Chemours Company  
1007 Market Street  
P.O. Box 2047  
Wilmington, DE 19899

Subject: Notification per PRN 98-10 – Minor label changes

Product Name: Virkon S  
EPA Registration Number: 71654-6  
Application Date: November 6, 2015  
Decision Number: 511389

Dear Ms. Baldassare:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Antimicrobials Division (AD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

If you have any questions, you may contact Stacey Grigsby at 703.305.6440 or via email at [grigsby.stacey@epa.gov](mailto:grigsby.stacey@epa.gov).

Sincerely,

A handwritten signature in black ink, which appears to read "Stacey Grigsby", is positioned above the typed name.

Stacey Grigsby  
Risk Manager  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

**Receipt for Section 3**

S: 976836
Milestone Email: Ellen.baldassare@chemours.com

Regulatory Type: Product Registration - Section 3
Resubmission: ☐ Yes ☒ No

Application Type: Notification
Fee For Service: ☐ Yes ☒ No

Company: 71654 THE CHEMOURS COMPANY FC, LLC

Risk Manager: Antimicrobials Division, Risk Management Team 34

Product #: 71654-6 Product Name: VIRKON S

Override#:

Me Too Section3: Me Too Product Name:

Application Date: 06-Nov-2015 OPP Rec'd Date: 06-Nov-2015

Front End Date: 06-Nov-2015 Risk Manager Send Date: 06-Nov-2015

FFS Due Date: Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:

Associated with Portal Submission 8983. Per PR Notice 98-10 Minor corrections to Trademark and addition of symbols

Form A: ☐ Signature Date: Form B: ☐ Signature Date:

Print Letter
Enter More Information
Tracking

Receipt Content	Des
Electronic Label	

View/Edit

332  
S. highly

DOCUMENTUM



The Chemours Company  
Chemical Solutions  
1007 Market Street  
PO Box 2047  
Wilmington, DE 19899

302-773-1000 t  
chemours.com

November 6, 2015

US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Hardy (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Reference: Virkon S; EPA Registration No. 71654-6

Dear Ms. Hardy,

Please consider this letter and the included documentation a notification to make updates to the label consistent with PRN 98-10 to the Master label for EPA 71654-6.

Minor adjustments requested by this update are detailed below:

- Addition of new symbols to label
- Revision of ® symbol to ™ symbol for Virkon™ trademark
- Revision of Registrant Address and contact phone numbers
- Revision of copyright statement

All updates are highlighted on one copy of the label. Enclosed in support of this action are the following:

- Application for Pesticide Registration (EPA form 8570-1)—Dated 11/6/15
- Two copies of the requested label changes, with one copy highlighted to outline changes.

Thank you for your assistance with this matter. Please feel free to contact me at 302.773.4569 or email me at [Ellen.Baldassare@chemours.com](mailto:Ellen.Baldassare@chemours.com) if you have any questions.

A handwritten signature in black ink, appearing to read 'Ellen M. Baldassare', with a stylized flourish at the end.

Ellen M. Baldassare  
Product Registration Manager  
302-773-4569  
[Ellen.Baldassare@chemours.com](mailto:Ellen.Baldassare@chemours.com)

Enclosures

DOCUMENTUM



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number 71654-6	2. EPA Product Manager Jacqueline Hardy	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Virkon S	PM# Team 34	
5. Name and Address of Applicant (Include ZIP Code)  The Chemours Company FC, LLC 1007 Market Street Wilmington, DE 19806  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to:  <input checked="" type="checkbox"/> EPA Reg. No. _____  Product Name _____	

## Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Minor corrections to Trademark and addition of symbols

"This notification is consistent with the provisions of PR notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA."

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<input checked="" type="checkbox"/> Metal	
* Certification must be submitted				<input type="checkbox"/> Plastic	
If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container	<input type="checkbox"/> Glass	
				<input type="checkbox"/> Paper	
				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 10lb, 9oz, 37gm		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Ellen M. Baldassare		Title Product Registration Manager		Telephone No. (Include Area Code) 302-773-4569	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.					6. Date Application Received (Stamped)
2. Signature 		3. Title Product Registration Manager			
4. Typed Name Ellen M. Baldassare		5. Date November 6, 2015			

DOCUMENTUM

# PROCESSING REQUEST

Reg # 71654-6

Decision # 500318

Description: Duplicate Request under D: 498455

## Material Available Electronically (see PPLS):

☐ Electronic Label/Letter Dated

☐ Other:

## Material Sent (see jacket):

☐ Stamped Label/Letter Dated

☐ Notification Dated

☐ New CSF(s) Dated

☒ Other: Duplicate Request under D: 498455

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Lorena Rivas

Division: AD

Phone: 305-5027

Date: 3/18/2015



February 10, 2015

Document Processing Desk  
Ms. Jacqueline Campbell (7504P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
2777 South Crystal Drive  
Arlington, VA 22202

Reference: VIRKON® S; EPA Registration No. 71654-6 --- Notification

Dear Ms. Campbell,

The purpose of this notification is to update the MASTER LABEL in order to reflect the new company name & address, revise the Alternate Brand Names (ABN) and to correct the respirator statement to be consistent with PR Notice 98-8.

Current Alternate Brand Name	Amended Name
DUPONT™ VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY USE	VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY USE
DUPONT™ TRIFECTANT® BROAD SPECTRUM DISINFECTANT	TRIFECTANT® BROAD SPECTRUM DISINFECTANT
DUPONT™ VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE	VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE
DUPONT™ VIRKON® S DISINFECTANT AND VIRUCIDE	VIRKON® S DISINFECTANT AND VIRUCIDE

CURRENT STATEMENT	REVISED STATEMENT
Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants	Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a NIOSH/MSHA approve respirator, plus goggles, long sleeve shirts and pants.

Should you have any questions, please feel free to call or e-mail. Thank you for your attention to our application.

Sincerely,



Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@chemours.com](mailto:Thomas.C.McEntee@chemours.com)  
(978) 312 1160  
(978) 335 8055 MOBILE

**EPA**

United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☐ Other:

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number <b>71654 - 6</b>	2. EPA Product Manager <b>Jacqueline Campbell</b>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Virkon® S</b>	PM# <b>Team 34</b>	
5. Name and Address of Applicant (Include ZIP Code) <b>THE CHEMOURS COMPANY FC, LLC 1007 MARKET STREET WILMINGTON, DE 19898 ATTN: Thomas C. McEntee</b> <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

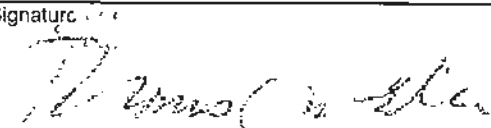
Current Alternate Brand Name	Amended Name
DUPONT™ VIRKON® VC DISINFECTANT AND VIRUCIDE	VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY
DUPONT™ TRIFECTANT® BROAD SPECTRUM	ANTEC™ TRIFECTANT® BROAD SPECTRUM DISINFECTANT
DUPONT™ VIRKON® AQUATIC DISINFECTANT AND	VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE
DUPONT™ VIRKON® S DISINFECTANT AND VIRUCIDE	VIRKON® S DISINFECTANT AND VIRUCIDE

"This notification is consistent with the provisions of PR notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA."

**Section - III**

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt. 5 gram,	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Package wgt. 37 gram	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)
*Certification must be submitted		No. per container 50	No. per container 50
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 10 pound, 5 gram tablet, 37 gram sachet	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ paper labels accompany bulk shipments _____ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name <b>Thomas C. McEntee</b>	Title <b>Registration Manager</b>	Telephone No. (Include Area Code) <b>(978) 335-8055</b>
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped) 
2. Signature	3. Title <b>Registration Manager</b>	
4. Typed Name <b>Thomas C. McEntee</b>	5. Date <b>February 13, 2015</b>	

*TRANSMITTAL DOCUMENT*

**Attention:**

Mr. Jacqueline Campbell  
Antimicrobials Division (7510P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**NAME AND ADDRESS OF SUBMITTER**

The Chemours Company FC, LLC  
1007 Market Street  
Wilmington, DE 19898

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED-

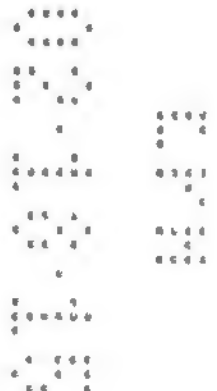
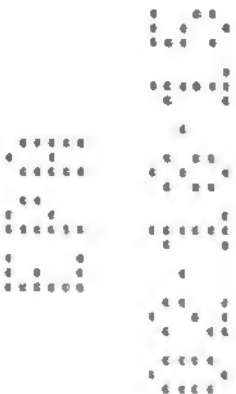
**MASTER LABEL**

**Virkon® S; EPA Registration No. 71654 - 6**

Transmittal Date: **February 13, 2015**

**Transmittal Material:**

Volume 1	Administrative Materials	
	Cover Letter	1 page
	Application for Pesticide Registration (EPA Form 8570-1)	1 page
	Transmittal Document	this page
	071654-00006.20150213.Virkon S.MASTER LABEL	1 CD



## There is an **ELECTRONIC LABEL** for this action

You can use Acrobat to compare the e-label to the previous version (and find the changes). You can also use Acrobat to mark-up the e-label with your comments.

If e-label was submitted via

### **CD-ROM with paper application**

then you will find e-label in

### **Electronic Label Library**

*If the e-label is not found in the ELL then it was probably not named correctly and could not be entered into the ELL. However, the file can be retrieved from the CD which is retained by the Front End.*

or

If e-label was submitted via

### **XML E-Submission (no paper)**

then you will find e-label in

### **Documentum**

See overview of processing e-labels on other side of this sheet.

If you have any questions on e-labels, please contact one of your division e-label experts:

AD	Willie Abney	308-1689
	Rena Whitaker	308-7003
	Tracy Lantz	308-6415
BPPD		
RD	Tom Harris	308-9423

**Receipt for Section 3**

S: 964529 Milestone Email:

Regulatory Type: Product Registration - Section 3  Resubmission: ☐ Yes ☒ No

Application Type: Notification  Fee For Service: ☐ Yes ☒ No

Company: 71654 THE CHEMOURS COMPANY FC, LLC

Risk Manager: Antimicrobials Division, Risk Management Team 34

Product #: 71654-6 Product Name: VIRKON S

Override#:

Me Too Section3:  Me Too Product Name:

Application Date: 10-Feb-2015  OPP Rec'd Date: 18-Feb-2015

Front End Date: 18-Feb-2015  Risk Manager Send Date: 19-Feb-2015

FFS Due Date:  Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:  
LABEL NOTIFICATION

Form A: ☐ Signature Date:  Form B: ☐ Signature Date:

New Ingredient Request Date:   
New Ingredient Received Date:

Receipt Content: Paper Label Des:

View/Edit

D. 500318

Notification

Registrant updating address on label,  
add new alternate brand names, &  
update registrant stmt.

382  
L Rivas

# PROCESSING REQUEST

Reg #: 71654-6

Decision #: 498455

Description: Revised Label Amendment

## Material Available Electronically (see PPLS):

☒ Electronic Label/Letter Dated: 3/12/2015

☐ Other:

## Material Sent (see jacket):

☒ Stamped Label/Letter Dated: 3/12/2015

☐ Notification Dated:

☐ New CSF(s) Dated:

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Lorena Rivas

Division: AD

Phone: 305-5027

Date: 3/12/2015



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 12, 2015

Thomas C. McEntee  
Registration Manager  
The Chemours Company FC, LLC  
1007 Market Street  
Wilmington, DE 19898

Subject: Label Amendment – Adding four Alternate Brand Names to the Master label  
*VIRKON® VC Disinfectant And Virucide For Veterinary*  
*ANTECT™ TRIFEKTANT® Broad Spectrum Disinfectant*  
*VIRKON® Aquatic Disinfectant And Virucide*  
*VIRKON® S Disinfectant And Virucide*  
Plus; revising under the DIRECTIONS FOR USE "Fogging (wet misting)  
Instructions on Page 7, minor language revisions to the NOTE paragraph.  
Product Name: VIRKON S  
EPA Registration Number: 71654-6  
Application Date: November 25, 2014  
Decision Number: 498455

Dear Mr. McEntee:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration

process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Lorena Rivas by phone at 703-305-5027 number, or via email at [rivas.lorena@epa.gov](mailto:rivas.lorena@epa.gov).

Sincerely,



for

Jacqueline Hardy, Product Manager 34  
Regulatory Management Branch II  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

Enclosure: Stamped Label



## Master Label

Note to reviewer – Content in brackets [ ] is OPTIONAL

Virkon® S

Disinfectant and Virucide

[Virkon® VC disinfectant and virucide for veterinary use - ABN]

[trifectant® broad spectrum disinfectant – ABN]

[Virkon® Aquatic disinfectant and Virucide – ABN]

[Virkon® S disinfectant and cleaner – ABN]

[BROAD SPECTRUM DISINFECTANT,][ FUNGICIDE] [& ALGAECIDE]

[Fragrance Free] [Reduced Dye] [Fragrance and Dye Free]

For Use in Cleaning and Disinfecting Industrial, Animal and Agricultural Facilities

[For Use in Emergency Disease Control]

Effective against

Viruses\*

Including Canine Parvovirus\*

Bacteria

Fungi

### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate 21.41%

Sodium Chloride 1.50%

OTHER INGREDIENTS 77.09%

TOTAL 100.00%

Equivalent to 9.75% Available Chlorine

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

[See Inside Booklet for Additional Precautions]

[See leaflet for additional directions for use [and \* explanatory notes.]]

EPA Reg. No. 71654-6

EPA Est. No. XXXXX-YY-ZZZ

<Lot or batch #>

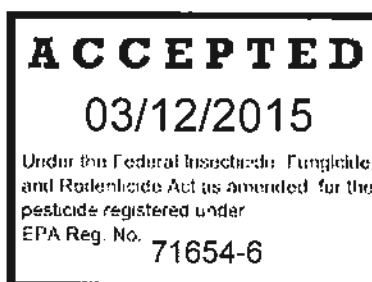
[POWDER FORM]

[TABLET FORM]

[SACHET FORM]

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Virkon® is a registered trademark of and manufactured by Antec International Ltd., an affiliate of The Chemours Company LLC.



## Master Label

### Front Panel Continued

FIRST AID	
If in Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.
If on Skin or Clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.
If Swallowed:	Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor Do not give anything by mouth to an unconscious person
HOT LINE NUMBER	
For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas). Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.	

Manufactured for:  
The Chemours Company FC, LLC  
1007 Market Street  
Wilmington, DE 19898

Questions? Call 1-800-441-7515  
Outside the US, contact: 1-302-774-1000

US Patent No. 4822512

Master Label

EFFECTIVE AGAINST THE FOLLOWING [ PATHOGEN ]:

[ANIMAL AND ZOONOTIC PATHOGENS]

## BACTERIA

[Actinobacillus pleuropneumoniae]

[Bacillus cereus]

[Brucella abortus]

[Campylobacter jejuni]

[Clostridium perfringens]

[Dermatophilus congolensis]

[Escherichia coli]

[Klebsiella pneumoniae]

[Mycoplasma gallisepticum]

[Mycoplasma hyopneumoniae]

[Pasteurella multocida]

Pseudomonas aeruginosa

Salmonella enterica

Salmonella typhimurium

[Shigella sonnei]

[Staphylococcus aureus]

[Staphylococcus epidermidis]

[Streptococcus pyogenes]

[Streptococcus suis]

[Not approved in California for use against the following bacteria]

[Bordetella avium]

[Bordetella bronchiseptica]

]Fistulous withers (Poll Evil)]

[Haemophilus somnus]

[Helicobacter pylori]

[Leptospira canicola]

[Listeria monocytogenes]

[Moraxella bovis (Pink Eye)]

[Mycoplasma mycoides]

[Pseudomonas mallei (Glanders)]

[Pseudomonas vulgaris]

[Streptococcus equi (Strangles)]

[Taylorella equigenitalis]

[Treponema hyodysenteriae]

## VIRUSES\*

Avian Influenza Virus

[Avian Laryngotracheitis Virus]

[Bovine Adenovirus Type 4]

[Canine Adenovirus (Canine Hepatitis)]

[Canine Parvovirus]

071654-00006.20150223.DRAFT.Virkon S Chemours MASTER Virus Asterisk

## Master Label

[Equine Herpes Virus (Type 1)]  
[Equine Herpes Virus (Type 3)]  
[Equine Influenza Virus (Type A)]  
[Feline Calicivirus]  
[Feline Panleukopenia Virus]  
[Feline Rhinotracheitis Virus]  
[Foot and Mouth Disease Virus]  
[Newcastle Disease Virus]  
[Simian virus (SV40 Virus)]

[Not approved in California for use against the following viruses\*:]

[Adenovirus Pneumonia]  
[African Horse Sickness Virus]  
[African Swine Fever Virus (tested with 1% soil load and 342 ppm hard water)]  
[Bovine Polyoma Virus]  
[Bovine Pseudocowpox Virus]  
[Bovine Viral Diarrhea Virus (no hard water)]  
[Calf Rotavirus (no hard water)]  
[Canine Coronavirus]  
[Canine Parainfluenza Virus]  
[Chicken Anemia Virus]  
[Coital Exanthema Virus]  
[Distemper Virus]  
[Duck Adenovirus (no hard water)]  
[Duck Enteritis Virus]  
[Egg Drop Syndrome Adenovirus]  
[Equine Infectious Anemia Virus (Swamp Fever)]  
[Equine Arteritis Virus (no hard water)]  
[Equine Contagious Abortion Virus]  
[Equine Papillomatosis Virus]  
[Equine Influenza Virus (The Cough)]  
[Feline Herpes Virus]  
[Feline Infectious Peritonitis Virus]  
[Feline Parvovirus]  
[Hog Cholera Virus]  
[Infectious Bronchitis Virus]  
[Infectious Bursal Disease Virus]  
[Infectious Canine Hepatitis Virus]  
[Infectious Pancreatic Necrosis Virus]  
[Infectious Salmon Anaemia Virus]  
[Infective Bovine Rhinotracheitis Virus (no hard water)]  
[Leptospira Canicola Virus]  
[Maedi- Visna Virus ]  
[Marek's Disease Virus]  
[Mouse Parvovirus]  
[PCV2 Virus (PMWS)]  
[Porcine Epidemic Diarrhea Virus]  
[Porcine Parvovirus]  
[Porcine Reproductive and Respiratory Syndrome Virus (PRRS)]

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## Master Label

[Pseudorabies Virus (Aujeszky's Disease) (no hard water)]  
[Rotaviral Diarrhea Virus]  
[Snakehead rhabdovirus]  
[Swine Influenza Virus]  
[Swine Vesicular Disease Virus]  
[Transmissible Gastroenteritis Virus (TGE) (no hard water)]  
[Turkey Herpes Virus (no hard water)]  
[Turkey Rhinotracheitis Virus]  
[Vesicular Stomatitis Virus]

## [FUNGI]

[Trichophyton mentagrophytes (2%)]

[Not approved in California for use against the following fungi:]

[Aspergillus fumigatus]  
[Fusarium moniliforme]  
[Microsporum canis]  
[Trichophyton spp. (Ringworm)]  
[Trichophyton spp. (Mud Fever)]

## [PLANT PATHOGENS]

[Not approved in California for use against plant pathogens]

[Alternaria solani]  
[Botrytis cinera]  
[Colletotrichum coccodes]  
[Didymella bryoniae]  
[Fusarium oxysporum]  
[Fusarium solani]  
[Penicillium oxalicum]  
[Phomopsis sclerotoides]  
[Pyrenochaeta lycoopersici]  
[Pythium aphanidermatum]  
[Rhizoctonia solani]  
[Sclerotinia sclerotiorum]  
[Thielaviopsis basicola]  
[Verticillium dahliae]  
[Xanthomonas axonopodis]

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive statement refers to powder only not in use-diluted solution.**

071654-00006.20150223.DRAFT.Virkon S Chemours MASTER Virus Asterisk

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## BROAD SPECTRUM DISINFECTANT

Virkon® S is effective against numerous microorganisms affecting animals: viruses\*, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses\* was determined in the presence of 400 ppm [200 ppm in California] AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., “no hard water,” “no soil load,” and “use 2% solution.”

[Respiratory illnesses attributable to Pandemic 2009 H1N1 are caused by influenza A virus. Virkon® S [Product Name] is a broad-spectrum hard surface disinfectant that has been shown to be effective against (influenza A virus tested and listed on the label) and is expected to inactivate all influenza A viruses\* including Pandemic 2009 H1N1 (formerly called swine flu).]

[This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus\*.]

[This product has demonstrated effectiveness against (influenza A virus tested and listed on the label) and is expected to inactivate all influenza A viruses\* including Pandemic 2009 H1N1 (formerly called swine flu).]

[Kills Pandemic 2009 H1N1 influenza A virus\* (formerly called swine flu).]

[Kills Pandemic 2009 H1N1 influenza A virus\*.]

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling

### GENERAL INSTRUCTIONS—POULTRY AND FARM PREMISES

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stalls, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the use-diluted disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

#### [Fogging (Wet Misting) Instructions –

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S dilution of 0.5% to 2.0% in water (1:200 to 1:50) - (refer to specific directions for Poultry, Swine, Bovine, Greenhouse and Aquaculture uses.).

Apply use-diluted solution at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a NIOSH/MSHA approved respirator, plus goggles, long sleeve shirts and pants.]

**Virkon® S DILUTION CHART**

To achieve the appropriate use-diluted Virkon® S concentration, fill container with the volume of water and quantity of powder or tablet(s) found in the following table. [For a 1% solution, add one (1) tablet to one pint of water.] [For a 1% solution, empty one 1.3 oz. sachet into 1 gallon of water.] .

**Powder**

Quantity of Water	0.5% Solution††	1% Solution	2% Solution
1 Quart	0.15 ounces	0.3 ounces	0.7 ounces
1 Gallon	0.65 ounces	1.3 ounces	2.7 ounces
10 Gallons	6.7 ounces	13.4 ounces	26.7 ounces
50 Gallons	33.4 ounces	66.8 ounces	133.5 ounces

Measuring cup provided.

**Tablet**

Quantity of Water	0.5% Solution††	1% Solution	2% Solution
1 Pint		1 tablet	2 tablets
1 Quart	1 tablet	2 tablets	4 tablets
1 Gallon	4 tablets	8 tablets	16 tablets

**Sachet**

Quantity of Water	0.5% Solution††	1% Solution	2% Solution
1 gallon	-	1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

†† The 0.5% solution currently is not approved for use in California.

Solutions are stable for 7 days. Do not soak metal objects in Virkon® S for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft. [This powder formulation is easily diluted for use in manual or machine operations.]



[POULTRY PRODUCTION AND RATITE PRODUCTION

**CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis virus and Avian Influenza virus; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. Not approved in California for use against the following organisms: Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease virus, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts – Not Approved for this use in California) *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.]

[**HATCHERIES:** Virkon® S at 1% solution can be used for cleaning and disinfecting hatching, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.]

[Fogging (Wet Misting) Instructions – Poultry and Ratite Production

Follow General Instructions to remove poultry and/or animals from room to be treated.

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S at dilution of 1.0% to 2.0% in water (1:100 to 1:50).

Apply at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a NIOSH/MSHA approved respirator, plus goggles, long sleeve shirts and pants.]

[BROILER/BREEDER HOUSES: Follow General Instructions to remove poultry and preclean area to be treated. Spray floors and walls with Virkon® S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon® S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.]

[PROCESSING PLANTS: Spray Virkon® S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.]

[SWINE PRODUCTION] .

[CONTROLS: Bacteria of; Actinobacillus Pleuropneumoniae and Clostridium perfringens; Foot and Mouth Disease virus, Fungi of Trichophyton mentragrophytes (2%). Not approved in California for use against the following organisms: Viruses of Hog Cholera, Swine influenza virus, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies virus, Rotoviral Diarrhea virus, African Swine Fever virus, Fungi of Fusarium moniliforme, and Bacteria of Treponema hyodysenteriae.] .

[Follow General Instructions to remove swine and preclean area to be treated. Use a 1% solution of Virkon® S for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.]

[Fogging (Wet Misting) --- Swine

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)].

[EQUINE PRODUCTION]

[BROAD SPECTRUM EQUINE DISINFECTANT/DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT]

[CONTROLS: Viruses of Equine herpes Type 1 and Type 3 and Equine Influenza. Bacteria of; Brucella abortus, Clostridium perfringens, Dermatophilus congolensis (at 2%), Pseudomonas aeruginosa, Salmonella typhimurium and Staphylococcus aureus. Fungi of Trichophyton mentagrophytes (at 2%). Not approved in California for use against the following organisms: Fungi of Fusarium moniliforme, Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of Clostridial Diarrhea, Fistulous Withers (Poll Evil), Taylorella equigenitalis, Bordetella bronchiseptica, Streptococcus equi (Strangles) and Pseudomonas mallei (Glanders); Fungi of Dermatophytosis (Ringworm) and Dermatophylosis (Mud Fever).]

[APPLICATIONS: For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms: Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.]

[To Clean Blankets, Saddle Pads and Rugs: *Not an approved use in California:* Using a 1% solution of Virkon® S, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.]

[BOVINE PRODUCTION]

[CONTROLS: Bovine Adenovirus Type 4, Foot and Mouth Disease virus ; Fungi of Trichophyton mentagrophytes(2%). Not approved in California for use against the following organisms: Bacteria of Moraxella bovis and Fungi of Fusarium moniliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, and Bacteria of Haemophilus somnus.]

[Follow General Instructions to remove livestock and preclean area to be treated. Use a 1% solution of Virkon® S to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.]

[Fogging (Wet Misting) --- Bovine

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)].

[COMPANION ANIMALS]

[CONTROLS: Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae, and Pseudomonas aeruginosa. Fungi of Trichophyton mentragrophytes(2%). Not approved in California for use against the following organisms: Viruses of Distemper, Leptospira canicola, Feline parvovirus, Feline herpes; Fungi of Microsporum canis.] .

[APPLICATIONS: Use a 1% solution of Virkon® S as a "one step" cleaning and disinfecting procedure (Remove gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages [caging systems]within or [associated with]Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S for long periods - 10 minutes is maximum contact time.]

[GREENHOUSES AND HORTICULTURE] .

[Virkon® S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays, and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. Not approved in California for use on ventilation and other equipment and water systems. It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.]

[For surfaces and equipment

- 1) Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
- 2) Use a dilution of 1:100 or 1.3 oz. Virkon® S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.
- 3) Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.

4) Heavy growth of algae or fungi may have to be scrubbed off following application.

5) Reapply as often as needed for control.

For clean non-porous surfaces

Pots, flats, trays: Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

Work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon® S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon® S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.]

[For evaporative coolers: Not approved use in California: Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon® S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon® S for every gallon of cooler water.]

[Virkon® S may also be used to disinfect irrigation tanks and lines. Not approved use in California: Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.]

[Fogging (Wet Misting) Instructions -- Greenhouse/Horticulture

[Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)].

[AQUACULTURE] .

[Not approved for this use in California] .

[Virkon® S is intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon® S may also be used in foot dips. Virkon® S must not be applied directly to water.]

[Equipment used in separate sites, tanks, ponds in aquaculture settings must be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon® S solution followed by a water rinse.]

[Fogging (Wet Misting) Instructions -- Aquaculture

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers

## Master Label

according to manufacturer's use directions. Rinse foggers and sprayers with water following use. Refer to Fogging (Wet Misting instructions)].

[EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)] .

[Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including; Newcastle Disease Virus, Foot and Mouth Disease Virus, African Horse Sickness Virus†, Vesicular Stomatitis Virus†, Classical Swine Fever Virus†, (Hog Cholera virus†), African Swine Fever Virus†, Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus†, and Mycoplasma mycoides† (Contagious Bovine Pleuropneumonia†).

†Not approved for this use in California.]

[Use a 1% solution of Virkon® S to clean and disinfect agricultural facilities and equipment, military facilities and equipment; airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harboring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers).

Spray Virkon® S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S for long periods - 10 minutes is maximum contact time. ]

### [DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS\*

Not approved for this use in California

The instructions above call for use of a 1% solution for general disinfection. However, Virkon® S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organism below, Virkon® S may be used at the following dilution rates:

Organism	Dilution Rate	Oz./Gallon
PCV2 virus* (PMWS)	1:200	0.7

[USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS]

[Use a 1% solution of Virkon® S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways. Virkon® S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon® S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon® S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon® S to pool on surfaces that may be within reach of animals. Do not allow Virkon® S to come into direct contact with people. Allow Virkon® S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.]

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage and disposal

**PESTICIDE STORAGE:**

For pails, [jugs], [bottles]: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. [Retain dessicant canister with product during storage.] Do not mix this product with other chemicals.

For [sachet] [pouch] [packet] [bag]: Store in a cool dry place. Keep out of reach of children. [Retain dessicant canister with product during storage.] Do not mix this product with other chemicals.

[For spray bottle with in-use solution: Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.]

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container.**

[Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment.] Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**EPA**

United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☐ **Registration**  
☐ **Amendment**  
☐ **Other:**

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number <b>71654 - 6</b>	2. EPA Product Manager <b>Jacqueline Hardy</b>	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Virkon® S</b>	PM# <b>Team 34</b>	
5. Name and Address of Applicant (Include ZIP Code) <b>THE CHEMOURS COMPANY FC, LLC</b> <b>1007 MARKET STREET</b> <b>WILMINGTON, DE 19898</b> <b>ATTN: Thomas C. McEntee</b> <input type="checkbox"/> Check if this is a new address	6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

**Section - II**

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

Current Alternate Brand Name	Amended Name
DUPONT™ VIRKON® VC DISINFECTANT AND VIRUCIDE	VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY
DUPONT™ TRIFECTANT® BROAD SPECTRUM	ANTEC™ TRIFECTANT® BROAD SPECTRUM DISINFECTANT
DUPONT™ VIRKON® AQUATIC DISINFECTANT AND	VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE
DUPONT™ VIRKON® S DISINFECTANT AND VIRUCIDE	VIRKON® S DISINFECTANT AND VIRUCIDE

Qualify the virucidal claim with an asterisk.

"This notification is consistent with the provisions of PR notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA."

**Section - III**

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt. 5 gram,	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Package wgt. 37 gram	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)
*Certification must be submitted		No. per container 50	No. per container 50
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 10 pound, 5 gram tablet, 37 gram sachet	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other paper labels accompany bulk shipments <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name <b>Thomas C. McEntee</b>	Title <b>Registration Manager</b>	Telephone No. (Include Area Code) <b>(978) 335-8055</b>
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <b>(Stamped)</b>
2. Signature 	3. Title <b>Registration Manager</b>	
4. Typed Name <b>Thomas C. McEntee</b>	5. Date <b>March 12, 2015</b>	



February 23, 2015

Document Processing Desk  
Ms. Jacqueline Hardy (7504P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
2777 South Crystal Drive  
Arlington, VA 22202

Reference: VIRKON® S; EPA Registration No. 71654-6 --- *amend* Notification

Dear Ms. Campbell,

The purpose of this notification is to update the MASTER LABEL in order to reflect the new company name & address, to qualify the virucidal claim with an asterisk, revise the Alternate Brand Names (ABN) and to correct the respirator statement to be consistent with PR Notice 98-8.

Current Alternate Brand Name	Amended Name
DUPONT™ VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY USE	VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY USE
DUPONT™ TRIFECTANT® BROAD SPECTRUM DISINFECTANT	TRIFECTANT® BROAD SPECTRUM DISINFECTANT
DUPONT™ VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE	VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE
DUPONT™ VIRKON® S DISINFECTANT AND VIRUCIDE	VIRKON® S DISINFECTANT AND VIRUCIDE

CURRENT STATEMENT	REVISED STATEMENT
Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants	Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a NIOSH/MSHA approved respirator, plus goggles, long sleeve shirts and pants.

Should you have any questions, please feel free to call or e-mail. Thank you for your attention to our application.

Sincerely,



Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@chemours.com](mailto:Thomas.C.McEntee@chemours.com)  
(978) 312 1160  
(978) 335 8055 MOBILE

*TRANSMITTAL DOCUMENT*

**Attention:**

Mr. Jacqueline Hardy  
Antimicrobials Division (7510P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**NAME AND ADDRESS OF SUBMITTER**

The Chemours Company FC, LLC  
1007 Market Street  
Wilmington, DE 19898

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED-

**MASTER LABEL**

**Virkon® S; EPA Registration No. 71654 - 6**

Transmittal Date: **February 23, 2015**

**Transmittal Material:**

Volume 1	Administrative Materials	
	Cover Letter	1 page
	Application for Pesticide Registration (EPA Form 8570-1)	1 page
	Transmittal Document	this page
	071654-00006.20150223.Virkon S.MASTER LABEL	1 CD

## Rivas, Lorena

---

**From:** Thomas.C.McEntee@chemours.com  
**Sent:** Thursday, March 12, 2015 4:40 AM  
**To:** Rivas, Lorena  
**Subject:** FW: EPA Reg. No. 71654 - 6; Virkon(R)S substitute E-label  
**Attachments:** 071654-00006 20150223 Virkon S Chemours MASTER Virus Asterisk.pdf; 20150223 8570-1 Application for Pesticide - CHEMOURS Virkon S Name.docx; 2015023 ReName Products cover Letter Hardy 71654-6 self-contained deleted.pdf; 20150223 Virkon S 71654-6 Transmittal.pdf

Ms. Lorena Rivas,

Ref: your March 11, 2015 e-mail to me concerning the term "powerful" and request for an e-label for # 71654- 6 and #71654 – 7.

Please refer to the attached docs which had been e-mailed to Ms. Jacqueline Hardy on Feb. 23, 2015.

I will follow-up concerning EPA Reg. No. 71654-7 with a separate e-mail.

Thank you for your assistance with our registrations.

**From:** MCENTEE, THOMAS C  
**Sent:** Thursday, February 26, 2015 1:18 PM  
**To:** 'Hardy.jacqueline@Epa.gov'  
**Subject:** EPA Reg. No. 71654 - 6; Virkon(R)S substitute E-label

Ms. Jacqueline Hardy,

Thank you for your telephone call and flexibility to receive the corrected MASTER label as an e-submission.

Should you have any questions please feel free to call or e-mail.

*Thomas C. McEntee*  
978 312 1160

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<b>EPA</b> United States <b>Environmental Protection Agency</b> Washington, DC 20460		<input type="checkbox"/> <b>Registration</b> <input checked="" type="checkbox"/> <b>Amendment</b> <input type="checkbox"/> <b>Other:</b>	OPP Identifier Number
<b>Application for Pesticide - Section I</b>			
1. Company/Product Number  <b>71654 - 6</b>		2. EPA Product Manager  <b>Jacqueline Campbell</b>	
4. Company/Product (Name) <b>VIRKON S</b>		3. Proposed Classification  <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted	
5. Name and Address of Applicant (Include ZIP Code) <b>THE CHEMOURS COMPANY FC, LLC</b> <b>1007 MARKET STREET</b> <b>WILMINGTON, DE 19898</b> <b>ATTN: Thomas C. McEntee</b> <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____	
<b>Section - II</b>			
<input checked="" type="checkbox"/> Amendment – Explain below. <span style="float: right;"><input type="checkbox"/> Final printed labels in response to Agency letter dated _____</span> <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <span style="float: right;"><input type="checkbox"/> "Me Too" Application</span> <input type="checkbox"/> Notification - Explain below. <span style="float: right;"><input type="checkbox"/> Other - Explain below</span>			
<b>Explanation:</b> Use additional page(s) if necessary. (For Section I and Section II.) Change product name following company transfer from: <u>VIRKON S</u> to: "VIRKON® S" AND add the Alternate Brand Names:  "VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY USE" "ANTEC® TRIFECTANT BROAD SPECTRUM DISINFECTANT" "VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE" "VIRKON® S POWERFUL BROAD SPECTRUM DISINFECTANT"			
<b>Section - III</b>			
1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Water Soluble P <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
*Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 11 pound, 1 pound, 5 gram X 50tablets, 37 individual	
		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled		<input type="checkbox"/> Other _____ paper labels accompany bulk shipments _____	
<b>Section - IV</b>			
1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)			
Name <b>Thomas C. McEntee</b>		Title <b>Registration Manager</b>	Telephone No. (Include Area Code) <b>(978) 335-8055</b>
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)  <div style="border: 1px solid black; width: 100px; height: 100px; margin: 0 auto;"></div>
2. Signature 		3. Title <b>Registration Manager</b>	
4. Typed Name <b>Thomas C. McEntee</b>		5. Date <b>November 25, 2014</b>	

November 25, 2014

Document Processing Desk  
Ms. Jacqueline Campbell (7504P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
One Potomac Yard  
2777 South Crystal Drive  
Arlington, VA 22202

Reference: VIRKON® S , EPA Registration No. 71654-6

Dear Ms. Campbell,

Under separate cover, documents to transfer the company number and registration assets of EPA Company Number 71654 have been communicated to Mr. Louis Vaughn at US EPA.

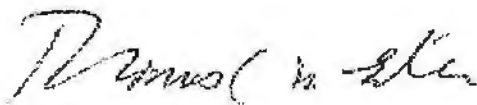
The purpose of this submission is to rename the product associated with the registration under the new company name and add Alternate Brand Names (ABN).

Current Name	Amended Name
VIRKON S	VIRKON® S VIRKON® VC DISINFECTANT AND VIRUCIDE FOR VETERINARY USE (ABN) ANTEC® TRIFECTANT BROAD SPECTRUM DISINFECTANT (ABN) VIRKON® AQUATIC DISINFECTANT AND VIRUCIDE (ABN) VIRKON® S POWERFUL BROAD SPECTRUM DISINFECTANT (ABN)

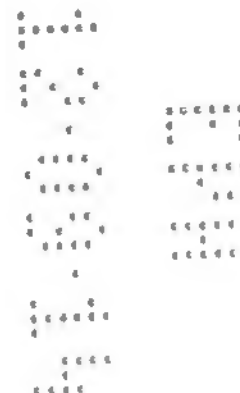
Should you have any questions, please feel free to call or e- mail.

Thank you for your attention to our application.

Sincerely,



Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@dupont.com](mailto:Thomas.C.McEntee@dupont.com)  
(978) 312 1160  
(978) 335 8055 MOBILE



S: 961488

Milestone Email:

Regulatory Type: Product Registration - Section 3

Resubmission: ☐ Yes ☒ No

Application Type: Amendment

Fee For Service: ☐ Yes ☒ No

Billable: ☐ Yes ☒ No

Company: 71654 THE CHEMOURS COMPANY FC, LLC



Risk Manager: Antimicrobials Division, Risk Management Team 34

Product #: 71654-6 Product Name: VIRKON S

Override#:

Me Too

Me Too Product

Section3:

Name:

Application Date: 25-Nov-2014



OPP Rec'd Date: 10-Dec-2014



Front End Date: 10-Dec-2014



Risk Manager Send Date: 12-Dec-2014



FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Fast Track: ☐

New Ingredient: ☐

Receipt Description:

AMENDMENT

Form A: ☐

Signature Date:

Form B: ☐

New Ingredient

Request Date:

New Ingredient

Received Date:

Signature Date:

Print Letter

Enter More Information

Tracking

Receipt Content

De:

Other

CHANGE PRODUCT I

View/Edit

Due date: 3/10/15  
D: 498455



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

December 16, 2014

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

MR. THOMAS C. MCENTEE  
THE CHEMOURS COMPANY FC, LLC  
1007 MARKET STREET  
WILMINGTON, DE 19898-

PRODUCT NAME: VIRKON S  
COMPANY NAME: THE CHEMOURS COMPANY FC, LLC  
OPP IDENTIFICATION NUMBER:  
EPA FILE SYMBOL: 71654-6  
EPA RECEIPT DATE: 12/10/14

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Antimicrobials Division, Risk Management Team 34, at (703) 308-6427.

Sincerely,

A handwritten signature in black ink, appearing to be "SGV".

Front End Processing Staff  
Information Services Branch  
Information Technology & Resources Management Division





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

December 12, 2014

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

MR. THOMAS C. MCENTEE  
THE CHEMOURS COMPANY FC, LLC  
1007 MARKET STREET  
WILMINGTON, DE 19898-

PRODUCT NAME: VIRKON S  
COMPANY NAME: THE CHEMOURS COMPANY FC, LLC  
OPP IDENTIFICATION NUMBER:  
EPA FILE SYMBOL: 71654-6  
EPA RECEIPT DATE: 12/10/14

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Antimicrobials Division, Risk Management Team 34, at (703) 308-6427.

Sincerely,

A handwritten signature in black ink, appearing to be "J. G. Smith", is written over the typed name.

Front End Processing Staff  
Information Services Branch  
Information Technology & Resources Management Division

**Fee for Service**

{961488T~

This package includes the following

- ☐ New Registration
- ☒ Amendment

- ☐ Studies?      ☐ Fee Waiver?
- ☐ volpay    % Reduction: \_\_\_\_\_

for Division

- ☒ AD
- ☐ BPPD
- ☐ RD

Risk Mgr.    **34**

Receipt No.

S-

**961488**

EPA File Symbol/Reg. No.

**71654-6**

Pin-Punch Date:

**12/10/2014**

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

**302**

Granted:

**302**

Amount Due: \$ \_\_\_\_\_

Parent/Child Decisions:

☐ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer: Rivas team 4      Date: 12/11/14

Remarks:

## Material Sent for Data Extraction

REG # 71654-6

Description: Notification

Material (s) Sent to Data Extraction Contractors

- ☐ New Stamped label Dated:
- ☒ Notification Dated: 10/17/2014
- ☐ New CSF(s) Dated:
- ☐ Other:

Decision #:

495464

---

Other Action/Comments:

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---

Reviewer: Lorena Rivas

Phone: 703-305-5027

Division: AD

Date: October 16, 2014

***Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).***

## Rivas, Lorena

---

**From:** Thomas.C.McEntee@dupont.com  
**Sent:** Tuesday, October 21, 2014 3:36 PM  
**To:** Rivas, Lorena  
**Subject:** RE: Accepted Notification for Reg. 71654-6.

Hello Ms. Rivas,

I have received the notification stamped label completely satisfactory.

Thank you for your assistance with our registration.

Sincerely -- Tom McEntee

**From:** Rivas, Lorena [mailto:Rivas.Lorena@epa.gov]  
**Sent:** Tuesday, October 21, 2014 3:08 PM  
**To:** MCENTEE, THOMAS C  
**Subject:** Accepted Notification for Reg. 71654-6.

Hi Mr. McEntee,

Enclosed you will find scan Pdf copy the accepted notification agency letter and approved notification stamped label dated October 17, 2014.

Please reply with an email that you have received all attachments.

Please do not hesitate to contact me if you have any questions regarding your Notification.

Regards,

Lorena Rivas  
Registration Risk Manager  
Antimicrobials Division (AD)  
Environmental Protection Agency  
2777 South crystal Drive  
Arlington, VA 22202  
[Rivas.lorena@epa.gov](mailto:Rivas.lorena@epa.gov)

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

October 17, 2014

Thomas C. McEntee  
E.I. DuPont de Nemours and Company  
Dupont Chemicals & Fluoroproducts P.O. Box 80402  
Experimental Station (ESL 402/3442A)  
Wilmington, DE 19880-0402

Subject: Virkon® S  
EPA Registration No.: 71654-6  
Notification Date: September 05, 2014  
EPA Receipt Date: September 10, 2014

Dear Mr. McEntee,

This letter acknowledges receipt of your notification submitted under the provisions of PR Notice 98-10.

**Proposed Notification**

- Adding an efficacy claim against the Non-OIE List Animal Pathogen, Porcine Epidemic Diarrhea Virus (PEDV). This claim is supported by efficacy, no data is needed for this organism.
- Updating other minor adjustments and corrections on the label.

**General Comments**

Based on a review of the submitted materials, to add the Non-OIE list animal Pathogen Epidemic Diarrhea Virus (PEDV) claim and updating other minor corrections on the label, per PR Notice 98-10 is **acceptable** and a part of the record on file for future reference.

Should you have any questions or comments concerning this letter, you may contact Lorena Rivas by telephone at (703) 305-5027 or by e-mail at [rivas.lorena@epa.gov](mailto:rivas.lorena@epa.gov). When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,

A handwritten signature in black ink, appearing to read "Julie Chao", is positioned above the typed name and title.

Julie Chao, Acting Product Manager 34  
Regulatory Management Branch II  
Antimicrobials Division (7510P)  
Office of Pesticide Programs

Master Label

Note to reviewer – Content in brackets | | is OPTIONAL

Virkon® S  
Disinfectant and Virucide

[BROAD SPECTRUM DISINFECTANT,][ FUNGICIDE] [& ALGAECIDE] [OPT]

[Fragrance Free] [Reduced Dye] [Fragrance and Dye Free] [OPT]

For Use in Cleaning and Disinfecting Industrial, Animal and Agricultural Facilities

[For Use in Emergency Disease Control] [OPT]

Effective against

Viruses

Including Canine Parvovirus [OPT]

Bacteria

Fungi

ACTIVE INGREDIENTS:

Potassium peroxymonosulfate..... 21.41%

Sodium Chloride..... 1.50%

OTHER INGREDIENTS..... 77.09%

TOTAL..... 100.00%

#### NOTIFICATION

71654-6

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

10/17/14

Equivalent to 9.75% Available Chlorine

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

[See Inside Booklet for Additional Precautions] [OPT]

[See leaflet for additional directions for use] [OPT]

EPA Reg. No. 71654-6

EPA Est. No. XXXXX-YY-ZZZ

<Lot or batch #>

[POWDER FORM] [OPT]

[TABLET FORM] [OPT]

[SACHET FORM] [OPT]

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Virkon® S is a registered trademark of and manufactured by Antec International Ltd., a DuPont Company

Master Label

Front Panel Continued

FIRST AID	
If in Eyes:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.
If on Skin or Clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.
If Swallowed:	Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor Do not give anything by mouth to an unconscious person
HOT LINE NUMBER	
For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas). Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.	

Manufactured for:  
E. I. du Pont de Nemours and Company  
Chemicals & Fluoroproducts  
200 Powder Mill Road  
Wilmington, DE 19803

Questions? Call 1-800-441-7515  
Outside the US, contact: 1-302-774-1000

US Patent No. 4822512

## Master Label

EFFECTIVE AGAINST THE FOLLOWING [ PATHOGEN ]: OPT

[ANIMAL AND ZOONOTIC PATHOGENS] OPT

### BACTERIA

[Actinobacillus pleuropneumoniae] OPT

[Bacillus cereus] OPT

[Brucella abortus] OPT

[Campylobacter jejuni] OPT

[Clostridium perfringens]

[Dermatophilus congolensis]

[Escherichia coli]

[Klebsiella pneumoniae]

[Mycoplasma gallisepticum]

[Mycoplasma hyopneumonia]

[Pasteurella multocida] OPT

Pseudomonas aeruginosa

Salmonella enterica

Salmonella typhimurium

[Shigella sonnei] OPT

[Staphylococcus aureus]

[Staphylococcus epidermidis]

[Streptococcus pyogenes]

[Streptococcus suis]

[Not approved in California for use against the following bacteria:]

[Bordetella avium]

[Bordetella bronchiseptica]

]Fistulous withers (Poll Evil)]

[Haemophilus somnus]

[Helicobacter pylori]

[Leptospira canicola]

[Listeria monocytogenes]

[Moraxella bovis (Pink Eye)]

[Mycoplasma mycoides]

[Pseudomonas mallei (Glanders)]

[Pseudomonas vulgaris]

[Streptococcus equi (Strangles)]

[Taylorella equigenitalis]

[Treponema hyodysenteriae] OPT

### VIRUSES

Avian Influenza Virus

[Avian Laryngotracheitis Virus] OPT

[Bovine Adenovirus Type 4]

[Canine Adenovirus (Canine Hepatitis)] OPT

[Canine Parvovirus] OPT



Master Label

[Equine Herpes Virus (Type 1)]  
[Equine Herpes Virus (Type 3)]  
[Equine Influenza Virus (Type A)]  
[Feline Calicivirus]  
[Feline Panleukopenia Virus]  
[Feline Rhinotracheitis Virus]  
[Foot and Mouth Disease Virus]  
[Newcastle Disease Virus]  
[Simian virus (SV40 Virus)]

[Not approved in California for use against the following viruses:]

[Adenovirus Pneumonia]  
[African Horse Sickness Virus]  
[African Swine Fever Virus (tested with 1% soil load and 342 ppm hard water)]  
[Bovine Polyoma Virus]  
[Bovine Pseudocowpox Virus]  
[Bovine Viral Diarrhea Virus (no hard water)]  
[Calf Rotavirus (no hard water)]  
[Canine Coronavirus]  
[Canine Parainfluenza Virus]  
[Chicken Anemia Virus]  
[Coital Exanthema Virus]  
[Distemper Virus]  
[Duck Adenovirus (no hard water)]  
[Duck Enteritis Virus]  
[Egg Drop Syndrome Adenovirus]  
[Equine Infectious Anemia Virus (Swamp Fever)]  
[Equine Arteritis Virus (no hard water)]  
[Equine Contagious Abortion Virus]  
[Equine Papillomatosis Virus]  
[Equine Influenza Virus (The Cough)]  
[Feline Herpes Virus]  
[Feline Infectious Peritonitis Virus]  
[Feline Parvovirus]  
[Hog Cholera Virus]  
[Infectious Bronchitis Virus]  
[Infectious Bursal Disease Virus]  
[Infectious Canine Hepatitis Virus]  
[Infectious Pancreatic Necrosis Virus]  
[Infectious Salmon Anaemia Virus]  
[Infective Bovine Rhinotracheitis Virus (no hard water)]  
[Leptospira Canicola Virus]  
[Maedi- Visna Virus ]  
[Marek's Disease Virus]  
[Mouse Parvovirus]  
[PCV2 Virus (PMWS)]  
[Porcine Epidemic Diarrhea Virus]  
[Porcine Parvovirus]  
[Porcine Reproductive and Respiratory Syndrome Virus (PRRS)]

## Master Label

[Pseudorabies Virus (Aujeszky's Disease) (no hard water)]  
[Rotaviral Diarrhea Virus]  
[Snakehead rhabdovirus]  
[Swine Influenza Virus]  
[Swine Vesicular Disease Virus]  
[Transmissible Gastroenteritis Virus (TGE) (no hard water)]  
[Turkey Herpes Virus (no hard water)]  
[Turkey Rhinotracheitis Virus]  
[Vesicular Stomatitis Virus]

## [FUNGI]

[Trichophyton mentagrophytes (2%)]

[Not approved in California for use against the following fungi:]

[Aspergillus fumigatus]  
[Fusarium moniliforme]  
[Microsporum canis]  
[Trichophyton spp. (Ringworm)]  
[Trichophyton spp. (Mud Fever)]

## [PLANT PATHOGENS]

[Not approved in California for use against plant pathogens:]

[Alternaria solani]  
[Botrytis cinera]  
[Colletotrichum coccodes]  
[Didymella bryoniae]  
[Fusarium oxysporum]  
[Fusarium solani]  
[Penicillium oxalicum]  
[Phomopsis sclerotoides]  
[Pyrenochaeta lycoopersici]  
[Pythium aphanidermatum]  
[Rhizoctonia solani]  
[Sclerotinia sclerotiorum]  
[Thielaviopsis basicola]  
[Verticillium dahliae]  
[Xanthomonas axonopodis] OPT

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive statement refers to powder only not in use-diluted solution.**

20140905 20110419 Virkon S 71654-6\_ESL 20110511

## ENVIRONMENTAL HAZARDS

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## BROAD SPECTRUM DISINFECTANT

Virkon® S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm [200 ppm in California] AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., “no hard water,” “no soil load,” and “use 2% solution.”

[Respiratory illnesses attributable to Pandemic 2009 H1N1 are caused by influenza A virus. Virkon® S [OPT] [Product Name] is a broad-spectrum hard surface disinfectant that has been shown to be effective against (influenza A virus tested and listed on the label) and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 (formerly called swine flu).] [OPT]

[This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.] [OPT]

[This product has demonstrated effectiveness against (influenza A virus tested and listed on the label) and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 (formerly called swine flu).] [OPT]

[Kills Pandemic 2009 H1N1 influenza A virus (formerly called swine flu).] [OPT]

[Kills Pandemic 2009 H1N1 influenza A virus.] [OPT]

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling

### GENERAL INSTRUCTIONS—POULTRY AND FARM PREMISES

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stalls, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the use-diluted disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

#### [Fogging (Wet Misting) Instructions –

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S dilution of 0.5% to 2.0% in water (1:200 to 1:50) - (refer to specific directions for Poultry, Swine, Bovine, Greenhouse and Aquaculture uses.).

Apply use-diluted solution at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.] OPT.

## Master Label

### Virkon® S DILUTION CHART

To achieve the appropriate use-diluted Virkon® S concentration, fill container with the volume of water and quantity of powder or tablet(s) found in the following table. [For a 1% solution, add one (1) tablet to one pint of water. OPT.] [For a 1% solution, empty one 1.3 oz. sachet into 1 gallon of water.] OPT.

#### Powder

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Quart	0.15 ounces*	0.3 ounces	0.7 ounces
1 Gallon	0.65 ounces*	1.3 ounces	2.7 ounces
10 Gallons	6.7 ounces*	13.4 ounces	26.7 ounces
50 Gallons	33.4 ounces*	66.8 ounces	133.5 ounces

Measuring cup provided.

#### Tablet

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 tablet	2 tablets
1 Quart	1 tablet*	2 tablets	4 tablets
1 Gallon	4 tablets*	8 tablets	16 tablets

#### Sachet

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 gallon	-	1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

\* The 0.5% solution currently is not approved for use in California.

Solutions are stable for 7 days. Do not soak metal objects in Virkon® S for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft. [This powder formulation is easily diluted for use in manual or machine operations. OPT.]

[POULTRY PRODUCTION AND RATITE PRODUCTION

CONTROLS: Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. Not approved in California for use against the following organisms: Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts – Not Approved for this use in California) *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.] OPT.

[HATCHERIES: Virkon® S at 1% solution can be used for cleaning and disinfecting hatching, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.] OPT.

[Fogging (Wet Misting) Instructions – Poultry and Ratite Production

Follow General Instructions to remove poultry and/or animals from room to be treated.

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S at dilution of 1.0% to 2.0% in water (1:100 to 1:50).

Apply at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.] OPT.

[BROILER/BREEDER HOUSES: Follow General Instructions to remove poultry and preclean area to be treated. Spray floors and walls with Virkon® S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon® S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.] OPT

[PROCESSING PLANTS: Spray Virkon® S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. ] OPT.

[SWINE PRODUCTION] OPT.

[CONTROLS: Bacteria of; Actinobacillus Pleuropneumoniae and Clostridium perfringens; Foot and Mouth Disease virus, Fungi of Trichophyton mentragrophytes (2%). Not approved in California for use against the following organisms: Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of Fusarium moniliforme, and Bacteria of Treponema hyodysenteriae.] OPT.

[Follow General Instructions to remove swine and preclean area to be treated. Use a 1% solution of Virkon® S for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.] OPT.

[Fogging (Wet Misting) --- Swine

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)]. OPT.

## Master Label

[EQUINE PRODUCTION] OPT.

[BROAD SPECTRUM EQUINE DISINFECTANT/DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT] OPT

[CONTROLS: Viruses of Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; Brucella abortus, Clostridium perfringens, Dermatophilus congolensis (at 2%), Pseudomonas aeruginosa, Salmonella typhimurium and Staphylococcus aureus. Fungi of Trichophyton mentagrophytes (at 2%). Not approved in California for use against the following organisms: Fungi of Fusarium moniliforme, Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of Clostridial Diarrhea, Fistulous Withers (Poll Evil), Taylorella equigenitalis, Bordetella bronchiseptica, Streptococcus equi (Strangles) and Pseudomonas mallei (Glanders); Fungi of Dermatophytosis (Ringworm) and Dermatophylosis (Mud Fever).] OPT.

[APPLICATIONS: For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms: Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. ]

[To Clean Blankets, Saddle Pads and Rugs: *Not an approved use in California*: Using a 1% solution of Virkon® S, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.] OPT

[BOVINE PRODUCTION] OPT.

[CONTROLS: Bovine Adenovirus Type 4, Foot and Mouth Disease virus ; Fungi of Trichophyton mentagrophytes(2%). Not approved in California for use against the following organisms: Bacteria of Moraxella bovis and Fungi of Fusarium moniliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, and Bacteria of Haemophilus somnus.] OPT.

[Follow General Instructions to remove livestock and preclean area to be treated. Use a 1% solution of Virkon® S to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.] OPT.

[Fogging (Wet Misting) --- Bovine

Follow General Instructions to remove poultry and/or animals from room to be treated.



Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)]. OPT.

[COMPANION ANIMALS] OPT.

[CONTROLS: Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae, and Pseudomonas aeruginosa. Fungi of Trichophyton mentragrophytes(2%). Not approved in California for use against the following organisms: Viruses of Distemper, Leptospira canicola, Feline parvovirus, Feline herpes; Fungi of Microsporium canis.] OPT.

[APPLICATIONS: Use a 1% solution of Virkon® S as a "one step" cleaning and disinfecting procedure (Remove gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages [caging systems]within or [associated with]Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon® S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S for long periods - 10 minutes is maximum contact time.] OPT.

[GREENHOUSES AND HORTICULTURE] OPT.

[Virkon® S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays, and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. Not approved in California for use on ventilation and other equipment and water systems. It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.] OPT.

[For surfaces and equipment

- 1) Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
- 2) Use a dilution of 1:100 or 1.3 oz. Virkon® S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.
- 3) Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.

4) Heavy growth of algae or fungi may have to be scrubbed off following application.

5) Reapply as often as needed for control.

For clean non-porous surfaces

Pots, flats, trays: Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

Work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon® S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon® S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.] OPT.

[For evaporative coolers: Not approved use in California: Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon® S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon® S for every gallon of cooler water.] OPT.

[Virkon® S may also be used to disinfect irrigation tanks and lines. Not approved use in California: Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.] OPT.

[Fogging (Wet Misting) Instructions – Greenhouse/Horticulture

[Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)]. OPT.

[AQUACULTURE] OPT.

[Not approved for this use in California] OPT.

[Virkon® S is intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon® S may also be used in foot dips. Virkon® S must not be applied directly to water.] OPT.

[Equipment used in separate sites, tanks, ponds in aquaculture settings must be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon® S solution followed by a water rinse.] OPT.

[Fogging (Wet Misting) Instructions -- Aquaculture

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers

according to manufacturer's use directions. Rinse foggers and sprayers with water following use. Refer to Fogging (Wet Misting instructions)]. OPT.

[EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)] OPT.

[Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including; Newcastle Disease Virus, Foot and Mouth Disease Virus, African Horse Sickness Virus†, Vesicular Stomatitis Virus†, Classical Swine Fever Virus†, (Hog Cholera virus†), African Swine Fever Virus†, Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus†, and Mycoplasma mycoides† (Contagious Bovine Pleuropneumonia†).

†Not approved for this use in California.] OPT.

[Use a 1% solution of Virkon® S to clean and disinfect agricultural facilities and equipment, military facilities and equipment; airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harboring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers).

Spray Virkon® S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S for long periods - 10 minutes is maximum contact time. ] OPT.

[DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

Not approved for this use in California

The instructions above call for use of a 1% solution for general disinfection. However, Virkon® S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organism below, Virkon® S may be used at the following dilution rates:] OPT

Organism	Dilution Rate	Oz./Gallon
PCV2 virus (PMWS)	1:200	0.7

] OPT

[USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS] OPT.

[Use a 1% solution of Virkon® S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways. Virkon® S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon® S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon® S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon® S to pool on surfaces that may be within reach of animals. Do not allow Virkon® S to come into direct contact with people. Allow Virkon® S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.] OPT.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage and disposal

**PESTICIDE STORAGE:**

For pails, [jugs], [bottles]: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. [Retain dessicant canister with product during storage.]

Do not mix this product with other chemicals.

For [sachet] [pouch] [packet] [bag]: Store in a cool dry place. Keep out of reach of children.

[Retain dessicant canister with product during storage.] Do not mix this product with other chemicals.

[For spray bottle with in-use solution: Store in a cool dry place. Keep out of reach of children.

Do not mix this product with other chemicals.]

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container.**

[Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles.

Empty residue into application equipment.] Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

E. I. du Pont de Nemours and Company  
Chemicals & Fluoroproducts  
DuPont Experimental Station - ESL 402  
200 Powder Mill Road  
P. O. BOX 8352  
Wilmington, DE 19803



DuPont Chemicals & Fluoroproducts

September 5, 2014

US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Campbell (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Subject: Virkon® S; EPA Registration No. 71654-6  
Notification

Dear Ms. Campbell,

Please consider this letter and attachments as a notification to add a claim for disinfection of the non-OIE list pathogen, Porcine Epidemic Diarrhea virus. The claim is supported by efficacy data, but is not submitted because FIFRA 2(ee) claims are not subject to data review.

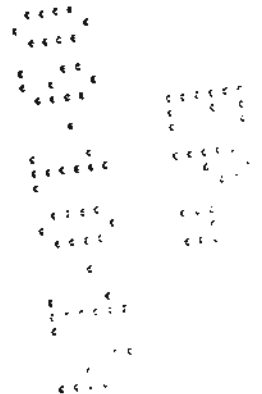
There are other minor adjustments and correction of typos, which are detailed in the attachment.

Should you have any questions, feel free to call or e-mail.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas C. McEntee", written in a cursive style.

Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@usa.dupont.com](mailto:Thomas.C.McEntee@usa.dupont.com)  
(978) 335-8055 CELL  
(978) 312-1160



 <b>EPA</b> Environmental Protection Agency Washington, DC 20460	United States <input type="checkbox"/> <b>Registration</b> <input type="checkbox"/> <b>Amendment</b> <input checked="" type="checkbox"/> <b>Other:</b>	OPP Identifier Number
---	---	-----------------------

**Application for Pesticide - Section I**

1. Company/Product Number <b>71654 - 6</b>	2. EPA Product Manager Jacqueline Campbell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>Virkon® S</b>	PM# <b>Team 34</b>	
5. Name and Address of Applicant (Include ZIP Code) <b>E. I. du Pont de Nemours and Company</b> <b>Chemicals &amp; Fluoroproducts</b> <b>DuPont Experimental Station - ESL 402</b> <b>200 Powder Mill Road</b> <b>P. O. BOX 8352</b> <b>Wilmington, DE 19803</b>  <b>ATTN: Thomas C. McEntee</b> <input checked="" type="checkbox"/> Check if this is a new address		
6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. _____  Product Name _____		

**Section - II**

<input type="checkbox"/> Amendment – Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application <input type="checkbox"/> Other - Explain below
--	---

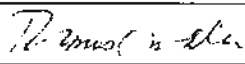
**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)Add non-OIE list organism Porcine Epidemic Diarrhea virus and minor corrections to the MASTER LABEL.

"This notification is consistent with the provisions of PR notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA."

**Section - III**

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"    No. per container Unit Packaging wgt.	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"    No. per container Package wgt.	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 10 pound, 9 oz. tablets, 37 gram	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input checked="" type="checkbox"/> On labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ paper labels accompany bulk shipments <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

**Section - IV**

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)		
Name <b>Thomas C. McEntee</b>	Title <b>Registration Manager</b>	Telephone No. (Include Area Code) <b>(978) 335-8055</b>
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <b>(Stamped)</b>
2. Signature 	3. Title <b>Registration Manager</b>	
4. Typed Name <b>Thomas C. McEntee</b>	5. Date September 9, 2014	

VIRKON® S  
Disinfectant and Virucide  
EPA Reg. No. 71654 – 6

LIST OF REVISIONS TO MASTER LABEL  
SEPTEMBER 5, 2014  
071654-00006.20140905.Virkon\_S.PEDv.Notification.pdf

Page 2 – Change Company Address To:

E. I. du Pont de Nemours and Company  
Chemicals & Fluoroproducts  
200 Powder Mill Road  
Wilmington, DE 19803

Page 4 – Add “[Porcine Epidemic Diarrhea Virus]” to the section under Not Approved in California for use against the following viruses, to read:

...

[Mouse Parvovirus]  
[PCV2 Virus (PMWS)]  
[Porcine Epidemic Diarrhea Virus]  
[Porcine Parvovirus]  
[Porcine Reproductive and Respiratory Syndrome Virus (PRRS)]  
[Pseudorabies Virus (Aujeszky's Disease) (no hard water)]

...

Page 4 – Move “[Foot and Mouth Disease Virus]” from the Not Approved in California for use against the following viruses, to read:

...

[Feline Rhinotracheitis Virus]  
[Foot and Mouth Disease Virus]  
[Newcastle Disease Virus]

...

Page 4 – Move and edit “[Leptospira Canicola Virus]” from the section Not Approved in California for use against the following viruses, to page 3 under “[Not approved in California for use against the following bacteria:]” to read:

...

[Helicobacter pylori]  
[Leptospira canicola]  
[Listeria monocytogenes]

...

*TRANSMITTAL DOCUMENT*

Ms. Jacqueline Campbell  
Antimicrobials Division (7510P)  
US Environmental Protection Agency  
Office of Pesticide Programs Room S-4900  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**NAME AND ADDRESS OF SUBMITTER**

E. I. du Pont de Nemours and Company  
Chemicals & Fluoroproducts  
DuPont Experimental Station - ESL 402  
200 Powder Mill Road  
P. O. BOX 8352  
Wilmington, DE 19803

**REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED**

NOTIFICATION: ADDED CLAIM FOR EFFICACY AGAINST THE NON-OIE LIST ANIMAL PATHOGEN, PORCINE EPIDEMIC DIARRHEA VIRUS and several adjustments to the list of disclaimed for California uses.

**“Virkon® S”; EPA Registration No. 71654 - 6**

**Transmittal Date: September 5, 2014**

**Volume 1 Administrative Materials**

-Cover Letter	1 page
-Application for Pesticide Registration (EPA Form 8570-1)	1 page
-Transmittal Document	this page
- 071654-00006.20140905.Virkon_S.PEDv.Notification.pdf	one dvd
- LIST OF REVISIONS TO MASTER LABEL-Sept. 5, 2014	2 pages



Page 10 – Under SWINE PRODUCTION move “Foot and Mouth Disease Virus” from the “Not Approved in California for . . .” area to read:

[CONTROLS: Bacteria of; Actinobacillus Pleuropneumoniae and Clostridium perfringens; Foot and Mouth Disease virus, Fungi of Trichophyton mentragrophytes (2%). Not approved in California for use against the following organisms: Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of Fusarium moniliforme, and Bacteria of Treponema hyodysenteriae.]

Page 11-- Under BOVINE PRODUCTION move “Foot and Mouth Disease Virus” from the “Not Approved in California for . . .” area to read:

[CONTROLS: Bovine Adenovirus Type 4, Foot and Mouth Disease virus ; Fungi of Trichophyton mentragrophytes(2%). Not approved in California for use against the following organisms: Bacteria of Moraxella bovis and Fungi of Fusarium moniliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, and Bacteria of Haemophilus somnus.]

Page 13 – replace “should” with “must” to read:

[Equipment used in separate sites, tanks, ponds in aquaculture settings **must** be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon® S solution followed by a water rinse.] OPT.

Page 14 – Revise the EMERGENCY DISEASE CONTROL section by repurposing the sub-heading, “Not approved for this use in California” to become a footnote marked by the dagger symbol, “†” and editing the paragraph to read:

Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including; Newcastle Disease Virus, Foot and Mouth Disease Virus, African Horse Sickness Virus†, Vesicular Stomatitis Virus†, Classical Swine Fever Virus†, (Hog Cholera virus†), African Swine Fever Virus†, Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus†, and Mycoplasma mycoides† (Contagious Bovine Pleuropneumonia†).

†Not approved for this use in California.

**Receipt for Section 3**

S: 957635 Milestone Email:

Regulatory Type: Product Registration - Section 3  Resubmission: ☐ Yes ☒ No

Application Type: Notification  Fee For Service: ☐ Yes ☒ No

Company: 71654 E.I. DUPONT DE NEMOURS AND COMPANY

Risk Manager: Antimicrobials Division, Risk Management Team 34

Product #: 71654-6 Product Name: VIRKON S

Override#:

Me Too Section3:  Me Too Product Name:

Application Date: 05-Sep-2014  OPP Rec'd Date: 10-Sep-2014

Front End Date: 10-Sep-2014  Risk Manager Send Date: 10-Sep-2014

FSS Due Date:  Negotiated Due Date:

OPP Target Date:

Fast Track: ☐ New Ingredient: ☐

Receipt Description:  
NOTIFICATION consistent with provisions of PR Notice 98-10

Form A: ☐ Signature Date:  Form B: ☐ Signature Date:

New Ingredient Request Date:   
New Ingredient Received Date:

Receipt Content	Des
Paper Label	<input type="text"/>
Electronic Label	<input type="text"/>

*Due Date: Oct. 10, 14*

Hi, ~~Terrica~~

*(ASTH)* 332  
 Pls check w/ efficacy if they agree that the efficacy doesn't need  
 to be submitted for this organism.

Jacovie

Decision  
 495464

332  
~~Terrica~~  
 LORENA

# There is an **ELECTRONIC LABEL** for this action

You can use Acrobat to compare the e-label to the previous version (and find the changes). You can also use Acrobat to mark-up the e-label with your comments.

If e-label was submitted via

**CD-ROM with paper application**

then you will find e-label in

**Electronic Label Library**

*If the e-label is not found in the ELL then it was probably not named correctly and could not be entered into the ELL. However, the file can be retrieved from the CD which is retained by the Front End.*

or

If e-label was submitted via

**XML E-Submission (no paper)**

then you will find e-label in

**Documentum**

See overview of processing e-labels on other side of this sheet.

If you have any questions on e-labels, please contact one of your division e-label experts:

AD	Willie Abney	308-1689
	Renae Whitaker	308-7003
	Tracy Lantz	308-6415
BPPD		
RD	Tom Harris	308-9423



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL  
SAFETY AND POLLUTION  
PREVENTION

June 11, 2013

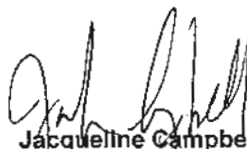
I, Jacqueline Campbell, Regulatory Management Branch 2, Antimicrobials Division, Office of Pesticide Programs, Office of Chemical Safety and Pollution Prevention, United States Environmental Protection Agency ("EPA"), certify that the pesticide product(s) listed below is, as of the date of this letter, a registered product under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, and that as such, the product(s) may be sold and marketed in the United States of America as authorized and limited by FIFRA. A true and correct copy of the product label approved by EPA is attached to accompany this letter.

Registration of this product(s) with EPA also denotes that the registrant listed below is responsible for ensuring full compliance with all the laws of the United States of America, or governing jurisdiction, regarding the sale, storage and/or disposal of the product(s). Further, the recipient of this letter is on notice that the referenced registration and/or the accompanying label may change subsequent to the date of this letter. EPA assumes no responsibility to notify the recipient(s) (i.e., Mexico) of this letter of any change in the status of the registration(s) and/or the product label for the product(s) listed below.

EPA has issued registration numbers for the product(s) listed below to:

E.I. Dupont De Nemours And Company  
80402  
Wilmington, DE 198800402

EPA Registration Number: 71654-6  
Name of Product: VIRKON S

  
Jacqueline Campbell  
Risk Manager 34  
Regulatory Management Branch 2  
Antimicrobials Division (7510P)



Williams, Bettyr

---

From: Thomas.C.McEntee@dupont.com  
Sent: Tuesday, June 11, 2013 11:47 AM  
To: Williams, Bettyr  
Subject: GOLD SEAL letter request for Mexico

Hello Betty,

EPA Reg. No. 71654-6

Gold Seal letter for Mexico

Thank you for your assistance.

Tom McEntee  
978 335 8055

5 CMT  
AD

This communication is for use by the intended recipient and contains information that may be Privileged, confidential or copyrighted under applicable law. If you are not the intended recipient, you are hereby formally notified that any use, copying or distribution of this e-mail, in whole or in part, is strictly prohibited. Please notify the sender by return e-mail and delete this e-mail from your system. Unless explicitly and conspicuously designated as "E-Contract Intended", this e-mail does not constitute a contract offer, a contract amendment, or an acceptance of a contract offer. This e-mail does not constitute a consent to the use of sender's contact information for direct marketing purposes or for transfers of data to third parties.

The dupont.com web address will continue in use for a transitional period for communications sent or received on behalf of DuPont Performance Coatings., which is not affiliated in any way with the DuPont Company.

Francais Deutsch Italiano Espanol Portugues Japanese Chinese Korean

[http://www.DuPont.com/corp/email\\_disclaimer.html](http://www.DuPont.com/corp/email_disclaimer.html)

DuPont Chemicals & Fluoroproducts  
P. O. Box 80402  
Wilmington, DE 19880-0402



DuPont Chemicals & Fluoroproducts

June 3, 2013

US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Campbell-McFarlane (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Subject: Virkon® S; EPA Registration No. 71654-6  
Gold Seal Letter PRIA M006

Dear Ms. Campbell-McFarlane,

This is a request for five GOLD SEAL LETTERS pertaining to Virkon® S; EPA Registration No. 71654-6.

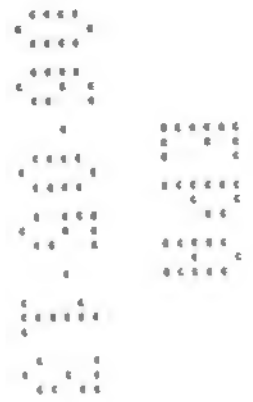
I have attached a copy of the PAY.GOV receipt for \$250.00 appropriate for PRIA code M006.

Should you have any questions, feel free to call or e-mail.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas C. McEntee".

Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@usa.dupont.com](mailto:Thomas.C.McEntee@usa.dupont.com)  
(978) 335-8055 CELL  
(978) 312-1160



Receipt for Section 3					
S:	936444	Resubmission:	<input type="radio"/> Yes <input checked="" type="radio"/> No		
Regulatory Type:	Product Registration - Section 3	Fee For Service:	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Application Type:	Amendment	Billable:	<input checked="" type="radio"/> Yes <input type="radio"/> No		
Company:	71654 E.I. DUPONT DE NEMOURS AND COMPANY	V			
Risk Manager:	Antimicrobials Division, Risk Management Team 34				
Product #:	71654-6	Product Name:	VIRKON S		
Override#:					
Me Too Section3:		Me Too Product Name:			
Application Date:	03-Jun-2013	OPP Rec'vd Date:	05-Jun-2013		
Front End Date:	05-Jun-2013	Risk Manager Send Date:	07-Jun-2013		
FFS Due Date:		Negotiated Due Date:			
OPP Target Date:					
Fast Track:	<input type="checkbox"/>	New Ingredient:	<input type="checkbox"/>		
Receipt Description:				View/Edit	
Gold Seal Certificates				New Ingredient Request Date: <input type="text"/>	
				New Ingredient Received Date: <input type="text"/>	
Form A: <input type="checkbox"/> Signature Date: <input type="text"/>				Form B: <input type="checkbox"/> Signature Date: <input type="text"/>	

Print Letter

Enter More Information

Tracking

Receipt Content	Des
Other	Gold Seals

## MCENTEE, THOMAS C

---

**From:** paygovadmin@mail.doc.twai.gov  
**Sent:** Monday, June 03, 2013 3:36 PM  
**To:** MCENTEE, THOMAS C  
**Subject:** Pay.gov Payment Confirmation: PRIA Service Fees

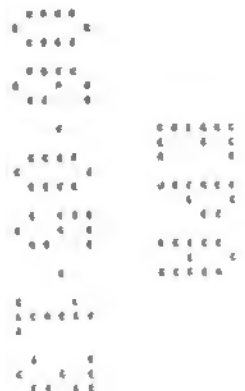
Your payment has been submitted to Pay.gov and the details are below. If you have any questions or you wish to cancel this payment, please contact Pay.gov Customer Service by phone at (800) 624-1373 or by email at [pay.gov.clev@clev.frb.org](mailto:pay.gov.clev@clev.frb.org).

Application Name: PRIA Service Fees  
Pay.gov Tracking ID: 25BOT8EQ  
Agency Tracking ID: 74458243548  
Transaction Type: Sale  
Transaction Date: Jun 3, 2013 3:35:55 PM

Account Holder Name: Susan M Schaner  
Transaction Amount: \$250.00  
Billing Address: DuPont  
Billing Address 2: P O Box 80402  
City: Wilmington  
State/Province: DE  
Zip/Postal Code: 198800402  
Country: USA  
Card Type: Visa  
Card Number: \*\*\*\*\*2032

Decision Number:  
Registration Number: 71654-6  
Company Name: DuPont  
Company Number: 71654  
Action Code: M006

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.







UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

June 7, 2013

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

OPP Decision Number: D-479541  
EPA File Symbol or Registration Number: 71654-6  
Product Name: VIRKON S  
EPA Receipt Date: 05-Jun-2013  
EPA Company Number: 71654  
Company Name: E.I. DUPONT DE NEMOURS AND COMPANY

THOMAS C. MCENTEE  
E.I. DUPONT DE NEMOURS AND COMPANY  
DUPONT CHEMICALS & FLUOROPRODUCTS  
PO Box 80402  
WILMINGTON, DE 19880-0402

SUBJECT: Receipt of Request for Gold Seal Certification Letter(s)

Dear Registrant:

The Office of Pesticide Programs has received your request for Gold Seal Certification letter(s) that is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The action has been identified as action code M006:

UP TO 5 GOLD SEAL CERTIFICATION LETTERS PER REGISTRATION

No additional payment is due at this time. If you have any questions, please contact Betty Williams at (703) 308-0132.

Sincerely,

A handwritten signature in black ink, appearing to be "J. Williams", is written over the word "Sincerely,".

Front End Processing Staff  
Information Technology & Resources Management Division

# Material Sent for Data Extraction

Reg # 43813-24

Description: Blog

☒ Material(s) Sent to Data Extraction Contractors:

☐ New Stamped Label Dated \_\_\_\_\_

☐ Notification Dated \_\_\_\_\_

☒ New CSF(s) Dated 6/14/2011

☐ Other: \_\_\_\_\_

☒ Decision #: 452605

☐ Other Action/Comments: \_\_\_\_\_

Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: Stacey GRIGSBY

Phone: 305.6440 Division: AD

Date: 10/13/11

# TASK ASSIGNMENT FORM

Antimicrobial Division/Regulatory Management Branches I/II

<b>A</b>	<b>Completed by Product Manager</b>						
PRODUCT REVIEWER: Stacey Grigsby						RMB II TEAM 34	
Description of Action: Minor Formulation Change						EPA File Symbol/Reg No.: 71654-6	
FQPA Action Code: 362		Non-FQPA Action Code:			Fee for Service Action Code:		
Decision No. 452605		Submission No. 899764			Fee for Service Fee: \$		
	MONTH	DAY	YEAR				
APPLICATION DATE	7	6	2011				
EPA PIN DATE	7	18	2011				
REVIEWER ASSIGNED DATE	7	28	2011				
DATE DUE TO PM			2011				
DATE DUE OUT OF AGENCY			2011				
Type of Data:	Product Chemistry x	Acute Toxicology	Efficacy	Environmental Fate <input type="checkbox"/>	Ecological Effects <input type="checkbox"/>	Chronic Toxicology <input type="checkbox"/>	Exposure <input type="checkbox"/>
<b>Comments: Minor Formulation Change</b> <b>Product Chemistry:</b> Please review 7 alternate CSFs.							
<b>ATTACHMENTS:</b> LABELING x CSFs DATA OTHER							
<b>B</b>	<b>For Arctic Slope Contract Only</b>						
Contractor: Arctic Slope				Contract No.:		TOPO/Alt. TOPO:	
Draft Task: Signature _____ (Est. hrs)				Final Task: Signature _____ (Total hrs)			
<b>C</b>	Reviewers Comments:						
Response Code: 1155				Response Date: 10/13/2011			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 13 2011

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Thomas C. McEntee  
E.I. duPont de Nemours and Company  
Dupont Chemicals & Fluoroproducts P.O. Box 80402  
Experimental Station (ESL 402/3442A)  
Wilmington, DE 19880-0402

Subject: **Virkon(R) S**  
EPA Registration No.: 71654-6  
Application Date: July 6, 2011  
Receipt Date: July 18, 2011

Dear Mr. McEntee:

The following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) 3(c)7a, as amended, is acceptable.

**Proposed Amendment:**

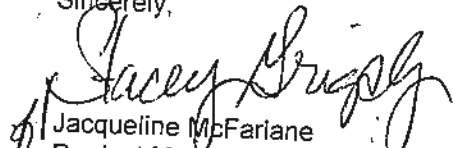
- Minor Alternate Formulation Change: 7 Alternate Formulations

**General Comment:**

The alternate formulations (1.1, 6.1A, 6.1H, 7.1A, 7.1H, 11.1A and 11.1H) dated, 6/14/11 are acceptable. They are in compliance with PR Notice 91-2 and in agreement with the label. Copies of the accepted alternate CSFs have been inserted in your file for future reference.

Should you have any questions or comments concerning this letter, you may contact me by telephone at (703) 308-6416 or by e-mail at [campbell-mcfarlane.jacqueline@epa.gov](mailto:campbell-mcfarlane.jacqueline@epa.gov) or Stacey Grigsby by telephone at (703) 305-6440 or by e-mail at [grigsby.stacey@epa.gov](mailto:grigsby.stacey@epa.gov) during the hours of 8:00am to 4:00pm EST.

Sincerely,

  
Jacqueline McFarlane  
Product Manager (34)  
Regulatory Management Branch II  
Antimicrobials Division (7510)

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

**Office of Pesticide Programs**

**Antimicrobials Division (AD)**

October , 2011

DP BARCODE: 392462

MRID : N/A

SUBJECT: Virkon® S

REG. NO.: 71654-6

DOCUMENT TYPE: Product Chemistry Review

Manufacturing-use ☐ OR End-use Product ☒

**INGREDIENTS:**

<u>PC Code(s)</u>	<u>CAS Number</u>	<u>Active Ingredient(s)</u>
013905	7647-14-5	Sodium chloride
063604	10058-23-8	Potassium peroxymonosulfate

TEST LAB: N/A

SUBMITTER: E. I. Dupont De Nemours and Company

GUIDELINE: Product Chemistry

ORGANIZATION: AD\PSB\CTT

REVIEWER: Lynette T. Umez-Eronini

APPROVED BY: Karen P. Hicks

APPROVED DATE: October 2011

COMMENT:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

Antimicrobials Division (AD)

October 13, 2011

MEMORANDUM

SUBJECT: Product Chemistry Review for EPA Reg. 71654-6  
Product Name: Virkon® S  
DP Barcode: 392462

CODE: A362

DATE DUE: October 16, 2011

FROM: Lynette T. Umez-Eronini, Chemist  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

*Lynette T. Umez-Eronini*

THRU: Karen Hicks, Team Leader  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

*Juan Negron  
for  
K. P. H. 10/13/11*

TO: Jacqueline Campbell-McFarlane PM#34/Stacey Grigsby  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

Applicant: E. I. Dupont De Nemours and Company

PRODUCT FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
Sodium chloride	1.50
Potassium peroxymonosulfate	21.41
<u>Other Ingredient(s):</u>	<u>77.09</u>
Total:	100.00

71654-6\_392462 Virkon® S

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

Antimicrobials Division (AD)

October 13, 2011

DP BARCODE: 392462  
MRID : N/A  
SUBJECT: Virkon® S  
REG. NO.: 71654-6  
DOCUMENT TYPE: Product Chemistry Review  
Manufacturing-use [ ] OR End-use Product [X]

INGREDIENTS:

<u>PC Code(s)</u>	<u>CAS Number</u>	<u>Active Ingredient(s)</u>
013905	7647-14-5	Sodium chloride
063604	10058-23-8	Potassium peroxymonosulfate

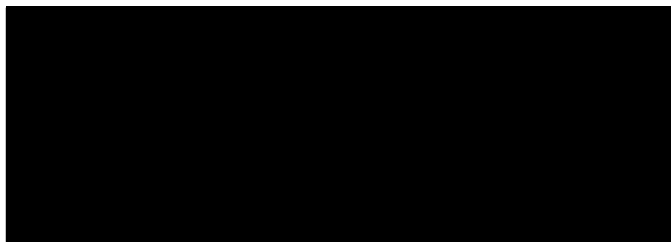
TEST LAB: N/A  
SUBMITTER: E. I. Dupont De Nemours and Company  
GUIDELINE: Product Chemistry  
ORGANIZATION: AD\PSB\CTT  
REVIEWER: Lynette T. Umez-Eronini  
APPROVED BY: Karen P. Hicks  
APPROVED DATE: October 13, 2011  
COMMENT:

#### BACKGROUND:

On behalf of the Registrant, E. I. DuPont De Nemours and Company, the Consultant, DuPont Chemicals Fluoroproducts, has submitted an amendment to add seven alternate formulations with substituting fragrances at less than 1% in an end-use product, Virkon® S. The product is a disinfectant and virucide that is used in cleaning and disinfecting industrial, animal, and agricultural facilities and is produced by a non-integrated system.

The original data package included:

1. A copy of a letter from the applicant's representative to EPA, dated July 6, 2011.
2. A copy of a Transmittal Document, pin-punched July 18, 2011.
3. EPA Form 8570-1 (Amendment), dated July 6, 2011.
4. Seven alternate Confidential Statements of Formula (CSFs), dated June 14, 2011:



5. A copy of Substitute Inert Ingredients (See: Supplement to Confidential Statement of Formula EPA Form Number 8570-4, EPA Registration No. 71654-6; Virkon® S, EPA Registration No. 71654-7 Virkon®), dated June 14, 2011
6. A copy of Fragrance Component Description. (See: CONFIDENTIAL SUPPLEMENT TO THE CONFIDENTIAL STATEMENT OF FORMULA), dated June 3, 2011.

The product label, dated May 4, 2010 was added to the original data package.

#### FINDINGS:

1. All inert ingredients and fragrances are in the Agency inert data base for non-food use.
2. The nominal concentrations of the active ingredients in the seven alternate formulations #s (1.1, 6.1A, 6.1H, 7.1A, 7.1H, 11.1A and 11.1H) are consistent with the product label, dated May 4, 2011.

#### CONCLUSION:

The Product Science Branch of Antimicrobials Division finds the submission for 71654-6 to add Alternate CSFs #s (1.1, 6.1A, 6.1H, 7.1A, 7.1H, 11.1A and 11.1H), dated June 14, 2011 to be acceptable.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460



United States  
Environmental Protection  
Agency

Office of Pesticide Programs

Antimicrobials Division (AD)

October , 2011

MEMORANDUM

SUBJECT: Product Chemistry Review for EPA Reg. 71654-6  
Product Name: Virkon® S  
DP Barcode: 392462

CODE: A362

DATE DUE: October 16, 2011

FROM: Lynette T. Umez-Eronini, Chemist  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

THRU: Karen Hicks, Team Leader  
Chemistry and Toxicology Team  
Product Science Branch  
Antimicrobials Division (7510P)

TO: Jacqueline Campbell-McFarlane PM#34/Stacey Grigsby  
Regulatory Management Branch I  
Antimicrobials Division (7510P)

Applicant: E. I. Dupont De Nemours and Company

PRODUCT FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
Sodium chloride	1.50
Potassium peroxymonosulfate	21.41
<u>Other Ingredient(s):</u>	<u>77.09</u>
Total:	100.00

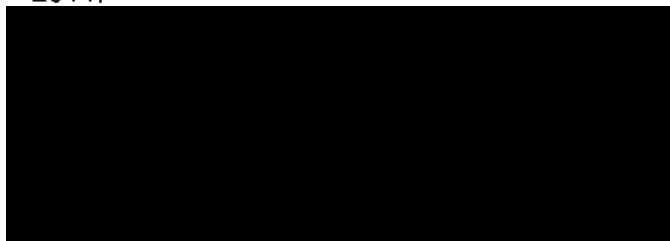
71654-6\_392462 Virkon® S

#### BACKGROUND:

On behalf of the Registrant, E. I. DuPont De Nemours and Company, the Consultant, DuPont Chemicals Fluoroproducts, has submitted an amendment to add seven alternate formulations with substituting fragrances at less than 1% in an end-use product, Virkon® S. The product is a disinfectant and virucide that is used in cleaning and disinfecting industrial, animal, and agricultural facilities and is produced by a non-integrated system.

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The product label, dated May 4, 2010 was added to the original data package.

#### FINDINGS:

1. All inert ingredients and fragrances are in the Agency inert data base for non-food use.
2. The nominal concentrations of the active ingredients in the seven alternate formulations #s (1.1, 6.1A, 6.1H, 7.1A, 7.1H, 11.1A and 11.1H) are consistent with the product label, dated May 4, 2011.

#### CONCLUSION:

The Product Science Branch of Antimicrobials Division finds the submission for 71654-6 to add Alternate CSFs #s (1.1, 6.1A, 6.1H, 7.1A, 7.1H, 11.1A and 11.1H), dated June 14, 2011 to be acceptable.

DuPont Chemicals & Fluoroproducts  
P. O. Box 80402  
Wilmington, DE 19880-0402



DuPont Chemicals & Fluoroproducts

July 6, 2011

US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Campbell-McFarlane (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Subject: Virkon® S; EPA Registration No. 71654-6  
Application for Accelerated Review of Amended Formulas - Fragrance Alternates

Dear Ms. Campbell-McFarlane,

Please consider this letter and attachments as our application to add seven additional alternate formulations substituting fragrance at less than 1% in accordance with PR Notice 98-10 V.A.2; ACCELERATED REVIEW OF MINOR FORMULATION CHANGES. The intent is to add seven new formulas, not to amend any of the previously accepted alternate formulas.

Should you have any questions, feel free to call or e-mail.

Sincerely,

A handwritten signature in dark ink, appearing to read "Tom McEntee", written in a cursive style.

Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@usa.dupont.com](mailto:Thomas.C.McEntee@usa.dupont.com)  
(978) 335-8055 CELL  
(978) 312-1160

*TRANSMITTAL DOCUMENT*

**Attention:**

Ms. Jacqueline Campbell- McFarlane  
Antimicrobials Division (7510P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**NAME AND ADDRESS OF SUBMITTER**

E.I. du Pont de Nemours and Company  
DuPont Chemicals & Fluoroproducts  
Experimental Station (ESL402/3224C)  
P. O. Box 80402  
Wilmington, DE 19880-0402

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED-

**Application to add Alternate Formulations under PR Notice 98-10 V.A.2.  
ACCELERATED REVIEW OF MINOR FORMULATION CHANGES**

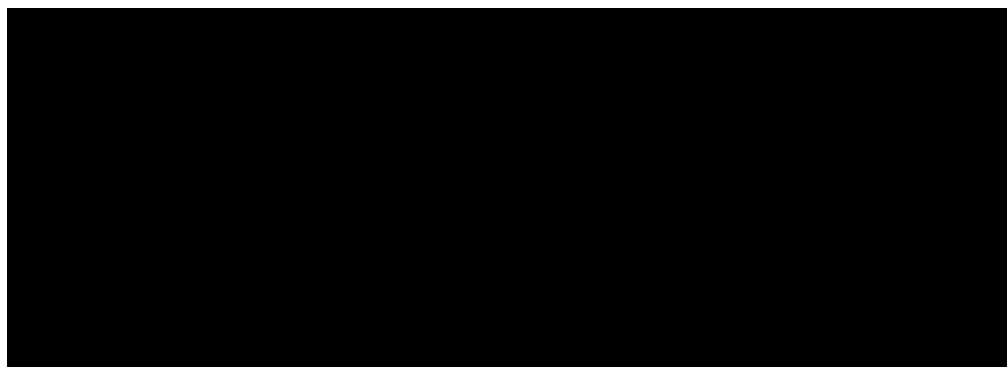
**“Virkon® S”; EPA Registration No. 71654-6**

**Seven NEW Alternate Fragrance CSFs --**

Transmittal Date: **July 6, 2011**

**Transmittal Material:**

Volume 1	Administrative Materials	
	-Cover Letter	1 page
	-Application for Pesticide Registration (EPA Form 8570-1)	1 page
	-Transmittal Document	this page



- Substitute Inert Ingredients	1 page
- Fragrance Component Description	1 page



DuPont Chemicals & Fluoroproducts  
P. O. Box 80402  
Wilmington, DE 19880-0402



DuPont Chemicals & Fluoroproducts

July 6, 2011

US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Campbell-McFarlane (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

Subject: Virkon® S; EPA Registration No. 71654-6  
Application for Accelerated Review of Amended Formulas - Fragrance Alternates

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Should you have any questions, feel free to call or e-mail.

Sincerely,

A handwritten signature in cursive script, appearing to read "Thomas C. McEntee".

Thomas C. McEntee  
Product Registration Manager  
[Thomas.C.McEntee@usa.dupont.com](mailto:Thomas.C.McEntee@usa.dupont.com)  
(978) 335-8055 CELL  
(978) 312-1160

\*Inert ingredient information may be entitled to confidential treatment\*

*TRANSMITTAL DOCUMENT*

**Attention:**

Ms. Jacqueline Campbell- McFarlane  
Antimicrobials Division (7510P)  
US Environmental Protection Agency  
Office of Pesticide Programs  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**NAME AND ADDRESS OF SUBMITTER**

E.I. du Pont de Nemours and Company  
DuPont Chemicals & Fluoroproducts  
Experimental Station (ESL402/3224C)  
P. O. Box 80402  
Wilmington, DE 19880-0402

REGULATORY ACTION IN SUPPORT OF WHICH THIS PACKAGE IS SUBMITTED-

**Application to add Alternate Formulations under PR Notice 98-10 V.A.2.  
ACCELERATED REVIEW OF MINOR FORMULATION CHANGES**

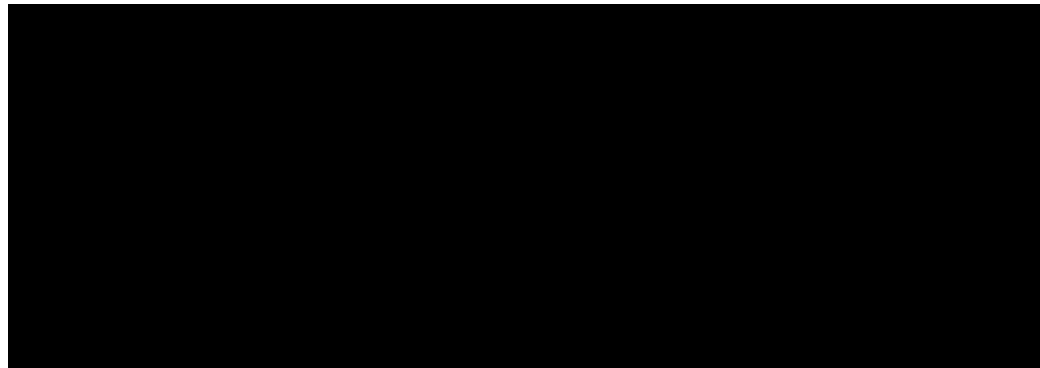
**“Virkon® S”; EPA Registration No. 71654-6**

**Seven NEW Alternate Fragrance CSFs --**

Transmittal Date: **July 6, 2011**

**Transmittal Material:**

Volume 1	Administrative Materials	
	-Cover Letter	1 page
	-Application for Pesticide Registration (EPA Form 8570-1)	1 page
	-Transmittal Document	this page



- Substitute Inert Ingredients	1 page
- Fragrance Component Description	1 page



Please read instructions on reverse before completing.

Form Approved. OMB No. 2070-0060



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☒ Amendment  
☐ Other

OPP Identifier Number

## Application for Pesticide - Section I

1. Company/Product Number 71654-6	2. EPA Product Manager Jacqueline Campbell-McFarlane	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Virkon(R) S	PM# 34	
5. Name and Address of Applicant (Include ZIP Code) E.I. du Pont de Nemours and Company DuPont Chemicals & Fluoroproducts P. O. Box 80402 Experimental Station (ESL 402/3442A) Wilmington, DE 19880-0402  <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

## Section - II

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Amendment--- Alternate Formulas under PR 98-10 V.A.2 ACCELERATED REVIEW OF MINOR FORMULATION CHANGES

## Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Metal	<input checked="" type="checkbox"/> Plastic
				<input type="checkbox"/> Glass	<input type="checkbox"/> Paper
* Certification must be submitted				<input type="checkbox"/> Other (Specify) _____	
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 10 lb., 1lb., 9 oz., 1.3 oz.	5. Location of Label Directions <input checked="" type="checkbox"/>			
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____					

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)					
Name Thomas C. McEntee		Title Product Registration Manager		Telephone No. (Include Area Code) 302 695 6856	
<p align="center"><b>Certification</b></p> <p>I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.</p>					
2. Signature 		3. Title Product Registration Manager		6. Date Application Received (Stamped)	
4. Typed Name Thomas C. McEntee		5. Date July 6, 2011			



DuPont Chemicals & Fluoroproducts  
P. O. Box 80402  
Wilmington, DE 19880-0402



DuPont Chemicals & Fluoroproducts

May 5, 2011

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated 5/4/2011

Document Processing Desk  
Antimicrobials Division (7510P)  
US Environmental Protection Agency  
Office of Pesticide Programs; Room S-4900  
Ms. Jacqueline Campbell-McFarlane (PM34)  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**Subject: Virkon® S, EPA Registration Number 71654-6**  
**Final printed labeling**

Dear Ms. Campbell-McFarlane,

In response to the May 4, 2011 letter for the EPA stamped accepted master label for the above referenced product, I have enclosed the following:

- EPA cover letter dated May 4, 2011
- 3 copies of the 10LB booklet label – 8 pages each
- 3 copies of the 1.3 oz sachet label – 1 page each
- 3 copies of the 50 X 5 gram tablets container label – 1 page each
- 3 copies of the Data sheet/IFU with fogging instructions – 8 pages each
- 3 copies of the Data sheet/IFU without fogging instructions – 8 pages each

If you have any questions, please feel free to call me at 302.695.2328 or e-mail me at [susan.m.schaner@usa.dupont.com](mailto:susan.m.schaner@usa.dupont.com).

Sincerely,

Susan M. Schaner  
Regulatory Coordinator  
DuPont Chemicals & Fluoroproducts

Enclosures



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

MAY 4 2011

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Susan M. Schaner  
**E.I. du Pont de Nemours and Company**  
Dupont Chemicals & Fluoroproducts,  
P.O. Box 80402  
Wilmington, DE 19880-0402

Subject: **Virkon(R) S**  
EPA Registration Number: 71654-6  
Application Date: March 31, 2011  
Receipt Date: April 5, 2011

Dear Ms. Schaner:

The following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide (FIFRA), as amended, is acceptable.

**Proposed Amendment**

- Updating Label per Agency Letter Dated 7/15/10 and Meeting on 3/30/11

**General Comments**

Submit 3 copies of your final printed labeling before distributing or selling the product bearing the revised labeling.

If you have further questions concerning this letter, then please contact me by telephone at (703) 308-6416 or by e-mail at [campbell-mcfarlane.jacqueline@epa.gov](mailto:campbell-mcfarlane.jacqueline@epa.gov) or Stacey Grigsby by telephone at (703) 308-6440 or by email at [grigsby.stacey@epa.gov](mailto:grigsby.stacey@epa.gov). When you are submitting information or data in response to this letter, send a copy of this letter to accompany the submission in order to facilitate processing.

Sincerely,

*Stacey Grigsby*  
4/ Jacqueline Campbell-McFarlane  
Product Manager 34  
Regulatory Management Branch II  
Antimicrobials Division (7510P)

Enclosure: stamped label



# Virkon® S

## DISINFECTANT AND VIRUCIDE



DISINFECTANT

### Tablet and Powder Form

*Effective against Viruses  
Bacteria, Fungi*

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate . . . . . 21.41%

Sodium chloride . . . . . 1.50%

OTHER INGREDIENTS . . . . . 77.09%

**TOTAL INGREDIENTS:** **100.00%**

Equivalent to 9.75% Available Chlorine

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated  
5/4/2011

#### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

with  
Fogging  
12/5/2021

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER / PELIGRO**

See Inside Booklet For Additional Precautionary Statements.

## PRECAUTIONARY STATEMENT TS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. **Corrosive statement refers to powder only not in use-diluted solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma.

Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm (200 ppm in California) AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hardwater," "no soil load," and "use 2% solution".

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE: For pails, jugs, bottles:

Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For sachet, pouch, packet, bag:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For spray bottle with in-use solution:** Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOONOTIC PATHOGENS

### BACTERIA

*Actinobacillus pleuropneumoniae*

*Bacillus cereus*

*Brucella abortus*

*Campylobacter jejuni*

*Clostridium perfringens*

*Dermatophilus congolensis*

*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Mycoplasma hyopneumoniae*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma mycoides*  
*Pseudomonas mallei (Glanders)*  
*Pseudomonas vulgaris*  
*Streptococcus equi (Strangles)*  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus (Canine Hepatitis)*  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*  
*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
 (tested with 1% soil load and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*  
*Bovine Viral Diarrhea Virus (no hard water)*

*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus (no hard water)*  
*Duck Enteritis Virus*  
*Egg Drop Syndrome Adenovirus*  
*Equine Infectious Anemia Virus (Swamp Fever)*  
*Equine Arteritis Virus (no hard water)*  
*Equine Contagious Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus (The Cough)*  
*Feline Herpes Virus*  
*Feline Infectious Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine Hepatitis Virus*  
*Infective Bovine Rhinotracheitis Virus*  
 (no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*  
*Porcine Reproductive and Respiratory Syndrome Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's Disease)*  
 (no hard water)  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis Virus (TGE)*  
 (no hard water)  
*Turkey Herpes Virus (no hard water)*  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton mentagrophytes (2%)*

Not approved in California for use against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporium canis*  
*Trichophyton spp. (Ringworm)*  
*Trichophyton spp. (Mud Fever)*

## PLANT PATHOGENS

Not approved in California for use against plant pathogens:

*Alternaria solani*

*Botrytis cinera*

*Colletotrichum coccodes*

*Didymella bryoniae*

*Fusarium oxysporum*

*Fusarium solani*

*Penicillium oxalicum*

*Phomopsis sclerotoides*

*Pyrenochaeta lycoopersici*

*Pythium aphanidermatum*

*Rhizoctonia solani*

*Sclerotinia sclerotiorum*

*Thielaviopsis basicola*

*Verticillium dahliae*

*Xanthomonas axonopodis*

## VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S for long periods – 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 square feet.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

\*The 0.5% solution is currently not approved for use in California.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES:

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stall, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

## FOGGING (WET MISTING) INSTRUCTIONS

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated. Prepare a Virkon®S dilution of 0.5% to 2.0% in water (1:200 to 1:50) – (refer to specific directions for Poultry, Swine, Bovine, Greenhouse and Aquaculture uses.). Apply use-diluted solution at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or

room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

#### **POULTRY PRODUCTION AND RATITE PRODUCTION**

**CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts, *not approved for use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

#### **FOGGING (WET MISTING) INSTRUCTIONS –**

**POULTRY AND RATITE PRODUCTION:** Follow General Instructions to remove poultry and/or animals from room to be treated. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated. Prepare a Virkon® S at dilution of 1.0% to 2.0% in water (1:100 to 1:50). Apply at an application rate of 1 gallon per 430 ft² of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do

not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon®S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon®S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

#### **SWINE PRODUCTION**

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentragrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme*, Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. 120

**FOGGING (WET MISTING) – S** **IE:** Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## **EQUINE PRODUCTION**

### **BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT**

**CONTROLS** Viruses of Newcastle Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%). *Not approved in California for use against the following organisms:* Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs:** *Not an approved use in California:* Using a 1% solution of Virkon®S, Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

## **BOVINE PRODUCTION**

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of *Trichophyton mentagrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis*; Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) – BOVINE:** Follow General Instructions to remove poultry and/or animals from room to be treated. Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## **COMPANION ANIMALS**

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes; Fungi of *Microsporum canis*.



**APPLICATION:** Use a 1% solution of Virkon®S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S Disinfectant and Virucide\* for long periods – 10 minutes is maximum contact time.

### GREENHOUSES AND HORTICULTURE

Virkon®S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds or soil.

*Not approved in California for use on ventilation and other equipment and water systems.*

It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

### FOR SURFACES AND EQUIPMENT

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. *Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.*
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

### FOR CLEAN NON-POROUS SURFACES

**Pots, flats, trays:** Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

**Work areas:** Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon®S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

**For evaporative coolers:** *Not approved for use in California.* Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon®S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon®S for every gallon of cooler water. Virkon®S may also be used to disinfect irrigation tanks and lines. *Not an approved use in California.* Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

### FOGGING (WET MISTING) INSTRUCTIONS –

**GREENHOUSE/HORTICULTURE:** Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### AQUACULTURE

*(Not approved for this use in California):* Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

### FOGGING (WET MISTING) INSTRUCTIONS –

**AQUACULTURE:** Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations.

supplemental measure after regular cleaning and disinfecting procedures. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with water following use. Refer to Fogging (Wet Misting instructions).

## EMERGENCY DISEASE CONTROL

**(ANIMAL HEALTH)** *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and *Mycoplasma mycoides* (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon®S to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harbouring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers). Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S for long periods - 10 minutes is maximum contact time.

## DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*(Not approved for this use in California):*

The instructions above call for use of a 1% solution for general disinfection. However, Virkon®S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the

dilution rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

Organism	Dilution rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

## USE IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon®S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways.

Virkon®S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/ boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon®S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon®S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon®S to pool on surfaces that may be within reach of animals. Do not allow Virkon®S to come into direct contact with people. Allow Virkon®S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

### Manufactured for:

E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA

Questions? Call 1-800-441-7515

Outside the US, contact: 1-302-774-1000

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# Virkon® S

## DISINFECTANT AND VIRUCIDE



*Tablet and Powder Form*

*Effective against Viruses  
Bacteria, Fungi*

**ACTIVE INGREDIENTS:**

Potassium peroxymonosulfate ..... 21.41%

Sodium chloride ..... 1.50%

**OTHER INGREDIENTS** ..... 77.09%

**TOTAL INGREDIENTS:** ..... 100.00%

*Equivalent to 9.75% Available Chlorine*

NOT REVIEWED  
In accordance with PR Notice 82-3  
Based on Draft Labeling Dated 5/14/2011

**FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**KEEP OUT OF REACH OF CHILDREN**  
***DANGER / PELIGRO***

*See Inside Booklet For Additional Precautionary Statements*

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. **Corrosive statement refers to powder only not in use-diluted solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm (200 ppm in California) AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hardwater," "no soil load," and "use 2% solution".

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE: For pails, jugs, bottles:

Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For sachet, pouch, packet, bag:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For spray bottle with in-use solution:** Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOONOTIC PATHOGENS

### BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*

*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Mycoplasma hyopneumoniae*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma mycoides*  
*Pseudomonas mallei (Glanders)*  
*Pseudomonas vulgaris*  
*Streptococcus equi (Strangles)*  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## **VIRUSES**

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus (Canine Hepatitis)*  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*  
*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
 (tested with 1% soil load and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*  
*Bovine Viral Diarrhea Virus (no hard water)*

*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus (no hard water)*  
*Duck Enteritis Virus*  
*Egg Drop Syndrome Adenovirus*  
*Equine Infectious Anemia Virus (Swamp Fever)*  
*Equine Arteritis Virus (no hard water)*  
*Equine Contagious Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus (The Cough)*  
*Feline Herpes Virus*  
*Feline Infectious Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine Hepatitis Virus*  
*Infective Bovine Rhinotracheitis Virus*  
 (no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*  
*Porcine Reproductive and Respiratory Syndrome Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's Disease)*  
 (no hard water)  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis Virus (TGE)*  
 (no hard water)  
*Turkey Herpes Virus (no hard water)*  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## **FUNGI**

*Trichophyton mentagrophytes (2%)*

Not approved in California for use against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*  
*Trichophyton spp. (Ringworm)*  
*Trichophyton spp. (Mud Fever)*

## PLANT PATHOGENS

Not approved in California for use against plant pathogens:

*Alternaria solani*

*Botrytis cinera*

*Colletotrichum coccodes*

*Didymella bryoniae*

*Fusarium oxysporum*

*Fusarium solani*

*Penicillium oxalicum*

*Phomopsis sclerotoides*

*Pyrenochaeta lycoopersici*

*Pythium aphanidermatum*

*Rhizoctonia solani*

*Sclerotinia sclerotiorum*

*Thielaviopsis basicola*

*Verticillium dahliae*

*Xanthomonas axonopodis*

## VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S for long periods – 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 square feet.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

\*The 0.5% solution is currently not approved for use in California.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## GENERAL INSTRUCTIONS –

### POULTRY AND FARM PREMISES:

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stall, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

### FOGGING (WET MISTING) INSTRUCTIONS

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated. Prepare a Virkon®S dilution of 0.5% to 2.0% in water (1:200 to 1:50) – (refer to specific directions for Poultry, Swine, Bovine, Greenhouse and Aquaculture uses.). Apply use-diluted solution at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or

room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

## **POULTRY PRODUCTION AND RATITE PRODUCTION**

**CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts, *not approved for use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## **FOGGING (WET MISTING) INSTRUCTIONS –**

**POULTRY AND RATITE PRODUCTION:** Follow General Instructions to remove poultry and/or animals from room to be treated. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated. Prepare a Virkon® S at dilution of 1.0% to 2.0% in water (1:100 to 1:50). Apply at an application rate of 1 gallon per 430 ft² of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do

not allow people breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and preclean area to be treated. Spray floors and walls with Virkon®S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon®S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

## **SWINE PRODUCTION**

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentragrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); *Pseudorabies*, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme*, Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and preclean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. <sup>128</sup>

**FOGGING (WET MISTING) – VINE:** Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## **EQUINE PRODUCTION**

### **BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT**

**CONTROLS** Viruses of Newcastle Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%). *Not approved in California for use against the following organisms:* Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blank: Saddle Pads and Rugs:** *Not an approved use in California:* Using a 1% solution of Virkon®S, Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

## **BOVINE PRODUCTION**

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of *Trichophyton mentagrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis*; Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and preclean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) – BOVINE:** Follow General Instructions to remove poultry and/or animals from room to be treated. Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## **COMPANION ANIMALS**

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes; Fungi of *Microsporum canis*.



**APPLICATION:** Use a 1% solution of Virkon®S Disinfectant and Virucide\* as a “one step” cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S Disinfectant and Virucide\* for long periods – 10 minutes is maximum contact time.

### GREENHOUSES AND HORTICULTURE

Virkon®S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds or soil.

*Not approved in California for use on ventilation and other equipment and water systems.*

It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

### FOR SURFACES AND EQUIPMENT

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. *Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.*
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

### FOR CLEAN NON-POROUS SURFACES

**Pots, flats, trays:** Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

**Work areas:** Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon®S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

**For evaporative coolers:** *Not approved for use in California.* Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon®S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon®S for every gallon of cooler water. Virkon®S may also be used to disinfect irrigation tanks and lines. *Not an approved use in California.* Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

### FOGGING (WET MISTING) INSTRUCTIONS –

**GREENHOUSE/HORTICULTURE:** Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### AQUACULTURE

*(Not approved for this use in California):* Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

### FOGGING (WET MISTING) INSTRUCTIONS –

**AQUACULTURE:** Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations. 130 a

supplemental measure after regular cleaning and disinfecting procedures. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with water following use. Refer to Fogging (Wet Misting instructions).

## EMERGENCY DISEASE CONTROL

**(ANIMAL HEALTH)** *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon®S to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harbouring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers). Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S for long periods - 10 minutes is maximum contact time.

## DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*(Not approved for this use in California):*

The instructions above call for use of a 1% solution for general disinfection. However, Virkon®S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the

dilution rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

Organism	Dilution rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

## USE IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon®S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways.

Virkon®S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/ boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon®S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon®S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon®S to pool on surfaces that may be within reach of animals. Do not allow Virkon®S to come into direct contact with people. Allow Virkon®S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

*Manufactured for:*  
E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA

**Questions? Call 1-800-441-7515**  
**Outside the US, contact: 1-302-774-1000**

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# Virkon® S

## DISINFECTANT AND VIRUCIDE



*Tablet and Powder Form*

*Effective against Viruses  
Bacteria, Fungi*

**ACTIVE INGREDIENTS:**

Potassium peroxymonosulfate ..... 21.41%

Sodium chloride ..... 1.50%

**OTHER INGREDIENTS** ..... **77.09%**

**TOTAL INGREDIENTS:** **100.00%**

*Equivalent to 9.75% Available Chlorine*

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated.

5/4/2011

**FIRST AID**

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

WITH FOE  
INSTRUCTIONS

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER / PELIGRO**

See Inside Booklet For Additional Precautionary Statements

## PRECAUTIONARY STATEMENT S

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. **Corrosive statement refers to powder only not in use-diluted solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma.

Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm (200 ppm in California) AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hardwater," "no soil load," and "use 2% solution".

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE: For pails, jugs, bottles:

Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For sachet, pouch, packet, bag:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For spray bottle with in-use solution:** Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL: Nonrefillable container.

Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOONOTIC PATHOGENS

### BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*

*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Mycoplasma hyopneumoniae*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma mycoides*  
*Pseudomonas mallei (Glanders)*  
*Pseudomonas vulgaris*  
*Streptococcus equi (Strangles)*  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus (Canine Hepatitis)*  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*  
*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
 (tested with 1% soil load and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*  
*Bovine Viral Diarrhea Virus (no hard water)*

*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus (no hard water)*  
*Duck Enteritis Virus*  
*Egg Drop Syndrome Adenovirus*  
*Equine Infectious Anemia Virus (Swamp Fever)*  
*Equine Arteritis Virus (no hard water)*  
*Equine Contagious Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus (The Cough)*  
*Feline Herpes Virus*  
*Feline Infectious Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine Hepatitis Virus*  
*Infective Bovine Rhinotracheitis Virus*  
 (no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*  
*Porcine Reproductive and*  
*Respiratory Syndrome Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's Disease)*  
 (no hard water)  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis Virus (TGE)*  
 (no hard water)  
*Turkey Herpes Virus (no hard water)*  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton mentagrophytes (2%)*

Not approved in California for use against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*  
*Trichophyton spp. (Ringworm)*  
*Trichophyton spp. (Mud Fever)*

## PLANT PATHOGENS

Not approved in California for use against plant pathogens:

*Alternaria solani*

*Botrytis cinera*

*Colletotrichum coccodes*

*Didymella bryoniae*

*Fusarium oxysporum*

*Fusarium solani*

*Penicillium oxalicum*

*Phomopsis sclerotoides*

*Pyrenochaeta lycoopersici*

*Pythium aphanidermatum*

*Rhizoctonia solani*

*Sclerotinia sclerotiorum*

*Thielaviopsis basicola*

*Verticillium dahliae*

*Xanthomonas axonopodis*

## VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S for long periods – 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 square feet.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

\*The 0.5% solution is currently not approved for use in California.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## GENERAL INSTRUCTIONS –

### POULTRY AND FARM PREMISES:

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stall, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

### FOGGING (WET MISTING) INSTRUCTIONS

All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated. Prepare a Virkon®S dilution of 0.5% to 2.0% in water (1:200 to 1:50) – (refer to specific directions for Poultry, Swine, Bovine, Greenhouse and Aquaculture uses.). Apply use-diluted solution at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or

room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

### **POULTRY PRODUCTION AND RATITE PRODUCTION**

**CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts, *not approved for use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

### **FOGGING (WET MISTING) INSTRUCTIONS –**

**POULTRY AND RATITE PRODUCTION:** Follow General Instructions to remove poultry and/or animals from room to be treated. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. All surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices. Close room off, so fog is confined to room to be treated. Prepare a Virkon® S at dilution of 1.0% to 2.0% in water (1:100 to 1:50). Apply at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do

not allow people to breathe or contact the fog or to enter the room until the fog has completely settled or exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

Note: Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and preclean area to be treated. Spray floors and walls with Virkon®S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon®S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

### **SWINE PRODUCTION**

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentragrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme*, Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and preclean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) – SWINE:** Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## **EQUINE PRODUCTION**

### **BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT**

**CONTROLS** Viruses of Newcastle Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%). *Not approved in California for use against the following organisms:* Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs:** *Not an approved use in California:* Using a 1% solution of Virkon®S, Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

## **BOVINE PRODUCTION**

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of *Trichophyton mentagrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis*; Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**FOGGING (WET MISTING) – BOVINE:** Follow General Instructions to remove poultry and/or animals from room to be treated. Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. *Not approved in California for fogging at dilutions less than 1%.* Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## **COMPANION ANIMALS**

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes; Fungi of *Microsporum canis*.



**APPLICATION:** Use a 1% solution of Virkon®S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S Disinfectant and Virucide\* for long periods – 10 minutes is maximum contact time.

### GREENHOUSES AND HORTICULTURE

Virkon®S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds or soil.

*Not approved in California for use on ventilation and other equipment and water systems.*

It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

### FOR SURFACES AND EQUIPMENT

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. *Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.*
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

### FOR CLEAN NON-POROUS SURFACES

**Pots, flats, trays:** Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

**Work areas:** Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon®S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

**For evaporative coolers:** *Not approved for use in California.* Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon®S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon®S for every gallon of cooler water. Virkon®S may also be used to disinfect irrigation tanks and lines. *Not an approved use in California.* Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

### FOGGING (WET MISTING) INSTRUCTIONS –

**GREENHOUSE/HORTICULTURE:** Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. Not approved in California for fogging at dilutions less than 1%. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### AQUACULTURE

*(Not approved for this use in California):* Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

### FOGGING (WET MISTING) INSTRUCTIONS –

**AQUACULTURE:** Use a 0.5% -1.0% solution of Virkon®S for fogging (wet misting) operations as a

supplemental measure after re-entry cleaning and disinfecting procedures. Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with water following use. Refer to Fogging (Wet Misting instructions).

### EMERGENCY DISEASE CONTROL

**(ANIMAL HEALTH)** *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon®S to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harbouring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers). Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S for long periods - 10 minutes is maximum contact time.

### DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*(Not approved for this use in California):*

The instructions above call for use of a 1% solution for general disinfection. However, Virkon®S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the

dilution rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

Organism	Dilution rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

### USE IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon®S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways.

Virkon®S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/ boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon®S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon®S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon®S to pool on surfaces that may be within reach of animals. Do not allow Virkon®S to come into direct contact with people. Allow Virkon®S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

*Manufactured for:*  
E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA

**Questions? Call 1-800-441-7515**  
**Outside the US, contact: 1-302-774-1000**

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NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated  
5/4/2011

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labelling. See leaflet for additional directions for use. Virkon® S DISINFECTANT AND VIRUCIDE. Fill container with desired amount of water and add Virkon® S Powder to achieve recommended solution concentration. For a 1% solution, empty one 1.3 oz. sachet into 1 gallon of water. A 1% solution of Virkon® S is recommended as a "one step" cleaning and disinfecting procedure for all hard, non-porous surfaces, equipment, instruments, utensils and cages associated with Veterinary Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animals quarters, grooming facilities, kennels and animal transportation vehicles. Solutions are stable for 7 days. Do not immerse metal objects in use-diluted solution for long periods - 10 minutes is the maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft.

**FIRST AID:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.

**If Swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

**Hot Line Number:** For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

# Virkon® S

## DISINFECTANT AND VIRUCIDE

DISINFECTANT

Net Contents: 1.3 oz. Powder Form



Effective against Viruses, Bacteria & Fungi

KEEP OUT OF REACH OF CHILDREN  
DANGER/PELIGRO

See Back Panel for Additional Precautions

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate ..... 21.41%

Sodium Chloride ..... 1.5%

OTHER INGREDIENTS ..... 77.09%

TOTAL ..... 100.0%

Equivalent to 9.75% Available Chlorine

#### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**  
**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.  
**Corrosive statement refers to powder only not in use-diluted solution.**

**Do not contaminate water, food, or feed by storage and disposal.**

#### PESTICIDE STORAGE:

**For sachet:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

Manufactured for:

E. I. du Pont de Nemours and Company  
PO Box 80402, Wilmington, DE 19880-0402  
Questions? Call 1 800 441-7515

US Patent No. 4822512

EPA Reg. No. 71654-6

EPA Est. No. 62432-EN-001

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A00962569/Virks/1.3sachet/Fed, USA/14.04.11/Z

NOT REVIEWED  
In accordance with PR Notice 82-2  
Based on Draft Labeling Dated 5/4/2011

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labelling. See leaflet for additional directions for use. Virkon® S DISINFECTANT AND VIRUCIDE. Fill container with desired amount of water and add Virkon® S Powder to achieve recommended solution concentration. For a 1% solution, empty one 1.3 oz. sachet into 1 gallon of water. A 1% solution of Virkon® S is recommended as a "one step" cleaning and disinfecting procedure for all hard, non-porous surfaces, equipment, instruments, utensils and cages associated with Veterinary Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animals quarters, grooming facilities, kennels and animal transportation vehicles. Solutions are stable for 7 days. Do not immerse metal objects in use-diluted solution for long periods - 10 minutes is the maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft.

**FIRST AID** Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.

**If Swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

**Hot Line Number:** For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

# Virkon® S

## DISINFECTANT AND VIRUCIDE

DISINFECTANT

Effective against Viruses, Bacteria & Fungi

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER/PELIGRO**

See Back Panel for Additional Precautions

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate	21.41%
Sodium Chloride	1.5%
OTHER INGREDIENTS	77.09%
TOTAL	100.0%

Equivalent to 9.75% Available Chlorine

Net Contents: 1.3 oz. Powder Form



#### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMAL DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.  
**Corrosive statement refers to powder only not in use-diluted solution.**

**Do not contaminate water, food, or feed by storage and disposal.**  
**PESTICIDE STORAGE:**

**For sachet:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

Manufactured for:

E. I. du Pont de Nemours and Company  
PO Box 80402, Wilmington, DE 19880-0402  
Questions? Call 1 800 441-7515

US Patent No. 4822512

EPA Reg. No. 71654-6

EPA Est. No. 62432-EN-001

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A00962569/Virkos/1.3sachet/Fed, USA/14.04.11/Z

NOT REVIEWED  
In accordance with PR Notice 82-2  
Based on Draft Labeling Dated 5/4/2011

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labelling. See leaflet for additional directions for use. Virkon® S DISINFECTANT AND VIRUCIDE. Fill container with desired amount of water and add Virkon® S Powder to achieve recommended solution concentration. For a 1% solution, empty one 1.3 oz. sachet into 1 gallon of water. A 1% solution of Virkon® S is recommended as a "one step" cleaning and disinfecting procedure for all hard, non-porous surfaces, equipment, instruments, utensils and cages associated with Veterinary Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animals quarters, grooming facilities, kennels and animal transportation vehicles. Solutions are stable for 7 days. Do not immerse metal objects in use-diluted solution for long periods - 10 minutes is the maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft.

**FIRST AID:** Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.

**If Swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

**Hot Line Number:** For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).



# Virkon® S

## DISINFECTANT AND VIRUCIDE

DISINFECTANT

Effective against Viruses, Bacteria & Fungi

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER/PELIGRO**

See Back Panel for Additional Precautions

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate	21.41%
Sodium Chloride	1.5%
OTHER INGREDIENTS	77.09%
<b>TOTAL</b>	<b>100.0%</b>
Equivalent to 9.75% Available Chlorine	

Net Contents: 1.3 oz. Powder Form

#### PRECAUTIONARY STATEMENTS

**HAZARDS TO HUMANS AND DOMESTIC ANIMAL DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.  
**Corrosive statement refers to powder only not in use-diluted solution.**

Do not contaminate water, food, or feed by storage and disposal.

#### PESTICIDE STORAGE:

**For sachet:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

Manufactured for:

E. I. du Pont de Nemours and Company  
PO Box 80402, Wilmington, DE 19880-0402  
Questions? Call 1 800 441-7515

US Patent No. 4822512

EPA Reg. No. 71654-6

EPA Est. No. 62432-EN-001

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purple denotes cut line

# Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**Virkon® S Dilution** Fill container with desired amount of water and add Virkon® S tablet to achieve recommended solution concentration. For a 1% solution, add one (1) tablet to one pint of water.

## Poultry, Swine, Equine, Bovine production – Broad Spectrum Disinfectant

Companion animals Use a 1% solution of Virkon® S as a "one step" cleaning and disinfecting procedure (remove gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all hard non-porous surfaces, equipment, instruments, utensils and cages. Refer to leaflet.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE:

For pails, jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous - refer to product leaflet for pesticide disposal instructions.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container - refer to product leaflet for container disposal instructions.

## PRECAUTIONARY STATEMENTS-HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. Corrosive statement refers to powder only not in use-diluted solution.

Manufactured for: E. I. du Pont de Nemours and Company

DuPont Animal Health Solutions

PO Box 80402, Wilmington, DE 19880-0402 USA

Questions? Call 1-800-441-7515. Outside the US, contact 1-302-774-1000

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# Virkon® S

DISINFECTANT AND VIRUCIDE

DISINFECTANT

KEEP OUT  
OF REACH  
OF CHILDREN

**DANGER/  
PELIGRO**

See side/back panel for  
additional precautions and  
leaflet for additional  
directions for use

**NET CONTENTS: 9 OZ  
(50 X 0.18OZ TABLETS)**



## Tablet format

Effective against viruses, bacteria, fungi

## ACTIVE INGREDIENTS:

Potassium peroxymonosulfate 21.41%

Sodium chloride 1.50%

OTHER INGREDIENTS 27.09%

TOTAL 100.00%

Equivalent to 9.75% Available Chlorine

## First Aid

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.

**If Swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

For 24-hour emergency information on this product, call 1-800-441-3637. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Reg No. 71654-S

EPA Est No. 62432-EN-001

NOT REVIEWED  
In accordance with PR Notice 82-2  
Based on Draft Labeling Dated 5/4/2011

#### Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**Virkon® S Dilution** Fill container with desired amount of water and add Virkon® S tablet to achieve recommended solution concentration. For a 1% solution, add one (1) tablet to one pint of water.

#### Poultry, Swine, Equine, Bovine production – Broad Spectrum Disinfectant

Companion animals Use a 1% solution of Virkon® S as a "one step" cleaning and disinfecting procedure (remove gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all hard non-porous surfaces, equipment, instruments, utensils and cages. Refer to leaflet.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

#### PESTICIDE STORAGE:

For pails, jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous - refer to product leaflet for pesticide disposal instructions.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container - refer to product leaflet for container disposal instructions.

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. Corrosive statement refers to powder only not in use-diluted solution.

Manufactured for: E. I. du Pont de Nemours and Company

DuPont Animal Health Solutions

PO Box 80402, Wilmington, DE 19880-0402 USA

Questions? Call 1-800-441-7515 Outside the US, contact: 1-302-774-1000

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# Virkon® S

DISINFECTANT AND VIRUCIDE

DISINFECTANT

KEEP OUT  
OF REACH  
OF CHILDREN  
**DANGER/  
PELIGRO**

See side/back panel for  
additional precautions and  
leaflet for additional  
directions for use

**NET CONTENTS: 9 OZ  
(50 X 0.18OZ TABLETS)**

DU PONT

#### Tablet format

Effective against viruses, bacteria, fungi

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate	21.41%
Sodium chloride	1.50%
OTHER INGREDIENTS	77.09%
TOTAL	100.00%

Equivalent to 9.75% Available Chlorine

#### First Aid

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.

**If Swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

For 24-hour emergency information on this product, call 1-800-441-3637. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Reg No. 71654-6

EPA Est No. 62432-EN-001

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated 5/4/2011

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#### Directions for Use

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

**Virkon® S Dilution Fill** container with desired amount of water and add Virkon® S tablet to achieve recommended solution concentration. For a 1% solution, add one (1) tablet to one pint of water.

#### Poultry, Swine, Equine, Bovine production - Broad Spectrum Disinfectant

Companion animals Use a 1% solution of Virkon® S as a "one step" cleaning and disinfecting procedure (remove gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all hard non-porous surfaces, equipment, instruments, utensils and cages. Refer to leaflet.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

#### PESTICIDE STORAGE:

For pails, jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain desiccant canister with product during storage. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous - refer to product leaflet for pesticide disposal instructions.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container - refer to product leaflet for container disposal instructions.

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. Corrosive statement refers to powder only not in use-diluted solution.

Manufactured for: E. I. du Pont de Nemours and Company

DuPont Animal Health Solutions

PO Box 80402, Wilmington, DE 19880-0402 USA

Questions? Call 1-800-441-7515 Outside the US, contact: 1-302-774-1000

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# Virkon® S

DISINFECTANT AND VIRUCIDE

DISINFECTANT

KEEP OUT  
OF REACH  
OF CHILDREN  
**DANGER/  
PELIGRO**

See side/back panel for  
additional precautions and  
leaflet for additional  
directions for use

NET CONTENTS: 9 OZ  
(50 X 0.18OZ TABLETS)

DU PONT

#### Tablet format

Effective against viruses, bacteria, fungi

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate

21.41%

Sodium chloride

1.50%

#### OTHER INGREDIENTS

77.09%

#### TOTAL

100.00%

Equivalent to 9.75% Available Chlorine

#### First Aid

**If in Eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a Poison Control Center or doctor for further treatment advice.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a Poison Control Center or doctor for further treatment advice.

**If Swallowed:** Call a Poison Control Center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

For 24-hour emergency information on this product, call 1-800-441-3637. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastric lavage.

EPA Reg No. 71654-6

EPA Est No. 62432-EN-001

NOT REVIEWED  
In accordance with PR Notice 82-2  
Based on Draft Labeling Dated 5/4/2011



EPA

05-13-11



# Virkon<sup>®</sup>S

## DISINFECTANT AND VIRUCIDE\*

DISINFECTANT

*For use in cleaning and  
disinfecting industrial, animal  
and agricultural facilities*

*Powder Form*

*Effective against Viruses\*,  
Bacteria, and Fungi*

### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate ..... 21.41%  
Sodium Chloride ..... 1.50%

OTHER INGREDIENTS ..... 77.09%

TOTAL INGREDIENTS: 100.00%

Equivalent to 9.75% Available Chlorine

**NET CONTENTS: 10LB (4.53KG)**

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated 5/4/2011

### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

KEEP OUT OF REACH OF CHILDREN

**DANGER / PELIGRO**

See inside booklet for Additional Precautions



EPA REG NO 71654-6  
EPA EST. NO. 42291-GA-01

EPA

05-13-11



# Virkon® S

DISINFECTANT AND VIRUCIDE\*

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is Corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive statement refers to powder only not in use solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon® S Disinfectant and Virucide\* is effective against numerous microorganisms affecting animals: viruses\*, gram positive and gram negative bacteria, fungi (molds and yeasts – *Not Approved for this use in California*), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses\* was determined in the presence of 400 ppm [200 ppm in California] AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hard water," "no soil load," and "use 2% solution."

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE: For pails, jugs, bottles:** Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container.** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# Virkon® S

DISINFECTANT AND VIRUCIDE\*

EFFECTIVE AGAINST THE  
FOLLOWING PATHOGENS:  
ANIMAL AND ZOONOTIC  
PATHOGENS

## BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*  
*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use  
against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma hyopneumonia*  
*Mycoplasma mycoides*  
*Pseudomonas mallei*  
(Glanders)  
*Pseudomonas vulgaris*  
*Streptococcus equi*  
(Strangles)  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus*  
(Canine Hepatitis)  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*

*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use  
against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
(tested with 1% soil load  
and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*  
*Bovine Viral Diarrhea Virus*  
(no hard water)  
*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus*  
(no hard water)  
*Duck Enteritis Virus*  
*Egg Drop Syndrome*  
*Adenovirus*

*Equine Infectious Anemia*  
*Virus (Swamp Fever)*  
*Equine Arteritis Virus*  
(no hard water)  
*Equine Contagious*  
*Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus*  
(The Cough)  
*Feline Herpes Virus*  
*Feline Infectious*  
*Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine*  
*Hepatitis Virus*  
*Infective Bovine*  
*Rhinotracheitis Virus*  
(no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*

*Porcine Reproductive and*  
*Respiratory Syndrome*  
*Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's*  
*Disease) (no hard water)*  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis*  
*Virus (TGE) (no hard water)*  
*Turkey Herpes Virus*  
(no hard water)  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton*  
*mentagrophytes (2%)*

Not approved in California for use  
against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*  
*Mycoplasma hyopneumonia*  
*Trichophyton spp. (Ringworm)*  
*Trichophyton spp. (Mud Fever)*

# Virkon® S

DISINFECTANT AND VIRUCIDE\*



## Virkon® S DISINFECTANT AND VIRUCIDE\* DILUTION CHART

Fill container with desired amount of water and add Virkon® S Disinfectant and Virucide\* to achieve solution concentration.

Solutions are stable for 7 days. Do not soak metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft. Measuring cup provided.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Quart	0.15 ounces*	0.3 ounces	0.7 ounces
1 Gallon	0.65 ounces*	1.3 ounces	2.7 ounces
10 Gallons	6.7 ounces*	13.4 ounces	26.7 ounces
50 Gallons	33.4 ounces*	66.8 ounces	133.5 ounces

\*The 0.5% solution currently is not approved for use in California.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stalls, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.

6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

This powder formulation is easily diluted for use in manual or machine operations.

**POULTRY AND RATITE PRODUCTION CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*,

*Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts – *Not Approved for this use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon® S Disinfectant and Virucide\* at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



### FOGGING (WET MISTING) INSTRUCTIONS – POULTRY AND RATITE PRODUCTION

Follow General Instructions to remove poultry and/or animals from room to be treated.

Surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S Disinfectant and Virucide at dilution of 1.0% to 2.0% in water (1:100 to 1:50).

Apply at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled and exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

**Note:** Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon® S Disinfectant and Virucide\* at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon® S Disinfectant and Virucide\*. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon® S Disinfectant and Virucide\* at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

### SWINE PRODUCTION

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentragrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme* Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon® S Disinfectant and Virucide\* for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots),

and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

### FOGGING (WET MISTING) – SWINE

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### EQUINE PRODUCTION

#### BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT

**CONTROLS:** Viruses of Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%) , *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentragrophytes* (at 2%) *Not approved in*

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



*California for use against the following organisms:*

Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridium* Diarrhea, Fistulous Withers (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs: Not an approved use in California:** Using a 1% solution of Virkon® S Disinfectant and Virucide\*, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

### BOVINE PRODUCTION

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of *Trichophyton mentagrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis* and Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

### FOGGING (WET MISTING) – BOVINE

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until

the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)

### COMPANION ANIMALS

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. Fungi of *Trichophyton mentagrophytes*(2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes; Fungi of *Microsporum canis*.

**APPLICATION:** Use a 1% solution of Virkon® S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



Do not immerse metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum contact time.

### GREENHOUSES AND HORTICULTURE

\* Virkon® S Disinfectant and Virucide\* is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays, and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. Not approved in California for use on ventilation and other equipment and water systems. It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

#### For surfaces and equipment

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon® S Disinfectant and Virucide\* per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.

4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

#### For clean non-porous surfaces

Pots, flats, trays: Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

Work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon® S Disinfectant and Virucide\* per gallon of clean water.

Use a dilution of 1:50 or 2.6 oz. of Virkon® S Disinfectant and Virucide\* per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

For evaporative coolers: Not approved use in California: Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon® S Disinfectant and Virucide\*. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon® S Disinfectant and Virucide\* for every gallon of cooler water.

Virkon® S Disinfectant and Virucide\* may also be used to disinfect irrigation tanks and lines. Not approved use in California: Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

### FOGGING (WET MISTING) INSTRUCTIONS – GREENHOUSE/HORTICULTURE

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)

*Not approved for this use in California* Disinfection helps to control and prevent the cross-contamination of DLE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect agricultural facilities and equipment, military facilities and equipment; airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



of harboring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins, and containers).

Spray Virkon® S Disinfectant and Virucide\* at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum contact time.

### DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*Not approved for this use in California.* The instructions above call for use of a 1% solution for general disinfection. However, Virkon® S Disinfectant and Virucide\* is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organisms below, Virkon® S Disinfectant and Virucide\* may be used at the following dilution rates:

Organism	Dilution Rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

### USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways. Virkon® S Disinfectant and Virucide\* may also

be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon® S Disinfectant and Virucide\* does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon® S Disinfectant and Virucide\* may only be applied using hand-held sprayers, sponges or other absorbent materials.

Do not allow Virkon® S Disinfectant and Virucide\* to pool on surfaces that may be within reach of animals. Do not allow Virkon® S Disinfectant and Virucide\* to come into direct contact with people. Allow Virkon® S Disinfectant and Virucide\* to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

Manufactured for:

**E. I. du Pont de Nemours and Company**  
**DuPont Animal Health Solutions**  
**PO Box 80402**  
**Wilmington, DE 19880-0402 USA**  
**www.ahs.dupont.com**

**Questions? Call 1-800-441-7515**

**Outside the US, contact 1-302-774-1000**

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Rev. 05/04/11



EPA

05-13-11



# Virkon® S

DISINFECTANT AND VIRUCIDE\*

DISINFECTANT

*For use in cleaning and  
disinfecting industrial, animal  
and agricultural facilities*

*Powder Form*

*Effective against Viruses\*,  
Bacteria, and Fungi*

**ACTIVE INGREDIENTS:**

Potassium peroxymonosulfate ..... 21.41%  
Sodium Chloride ..... 1.50%

**OTHER INGREDIENTS** ..... 77.09%

**TOTAL INGREDIENTS:** 100.00%

Equivalent to 9.75% Available Chlorine

**NET CONTENTS: 10LB (4.53KG)**

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated 5/4/2011

## FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person. Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

KEEP OUT OF REACH OF CHILDREN

**DANGER / PELIGRO**

See inside booklet for Additional Precautions



EPA REG NO 71654-6  
EPA EST. NO. 42291-GA-01

# Virkon®S

DISINFECTANT AND VIRUCIDE\*

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is Corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive statement refers to powder only not in use solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S Disinfectant and Virucide\* is effective against numerous microorganisms affecting animals: viruses\*, gram positive and gram negative bacteria, fungi (molds and yeasts – *Not Approved for this use in California*), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses\* was determined in the presence of 400 ppm [200 ppm in California] AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hard water," "no soil load," and "use 2% solution."

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05-13-11



## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** For pails, jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# Virkon®S

DISINFECTANT AND VIRUCIDE\*

EFFECTIVE AGAINST THE  
FOLLOWING PATHOGENS:  
ANIMAL AND ZOONOTIC  
PATHOGENS

## BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*  
*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use  
against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma hyopneumonia*  
*Mycoplasma mycoides*  
*Pseudomonas mallei*  
(Glanders)  
*Pseudomonas vulgaris*  
*Streptococcus equi*  
(Strangles)  
*Tylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus*  
(Canine Hepatitis)  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*

*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use  
against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
(tested with 1% soil load  
and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*  
*Bovine Viral Diarrhea Virus*  
(no hard water)  
*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus*  
(no hard water)  
*Duck Enteritis Virus*  
*Egg Drop Syndrome*  
*Adenovirus*

*Equine Infectious Anemia*  
*Virus (Swamp Fever)*  
*Equine Arteritis Virus*  
(no hard water)  
*Equine Contagious*  
*Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus*  
(The Cough)  
*Feline Herpes Virus*  
*Feline Infectious*  
*Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine*  
*Hepatitis Virus*  
*Infective Bovine*  
*Rhinotracheitis Virus*  
(no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*

*Porcine Reproductive and*  
*Respiratory Syndrome*  
*Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's*  
*Disease) (no hard water)*  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis*  
*Virus (TGE) (no hard water)*  
*Turkey Herpes Virus*  
(no hard water)  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton*  
*mentagrophytes (2%)*

Not approved in California for use  
against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*  
*Mycoplasma hyopneumonia*  
*Trichophyton spp. (Ringworm)*  
*Trichophyton spp. (Mud Fever)*

# Virkon®S

DISINFECTANT AND VIRUCIDE\*



## Virkon®S DISINFECTANT AND VIRUCIDE\* DILUTION CHART

Fill container with desired amount of water and add Virkon®S Disinfectant and Virucide\* to achieve solution concentration.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S Disinfectant and Virucide\* for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft. Measuring cup provided.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Quart	0.15 ounces*	0.3 ounces	0.7 ounces
1 Gallon	0.65 ounces*	1.3 ounces	2.7 ounces
10 Gallons	6.7 ounces*	13.4 ounces	26.7 ounces
50 Gallons	33.4 ounces*	66.8 ounces	133.5 ounces

*\*The 0.5% solution currently is not approved for use in California.*

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stalls, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.

6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

This powder formulation is easily diluted for use in manual or machine operations.

**POULTRY AND RATITE PRODUCTION CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*,

*Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts – *Not Approved for this use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S Disinfectant and Virucide\* at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

# Virkon® S

DISINFECTANT AND VIRUCIDE\*



## FOGGING (WET MISTING) INSTRUCTIONS – POULTRY AND RATITE PRODUCTION

Follow General Instructions to remove poultry and/or animals from room to be treated.

Surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S Disinfectant and Virucide at dilution of 1.0% to 2.0% in water (1:100 to 1:50).

Apply at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled.

Exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

**Note:** Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BRDILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon® S Disinfectant and Virucide\* at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon® S Disinfectant and Virucide\*. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon® S Disinfectant and Virucide\* at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

## SWINE PRODUCTION

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme* Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon® S Disinfectant and Virucide\* for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots),

and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## FOGGING (WET MISTING) – SWINE

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

## EQUINE PRODUCTION

### BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT

**CONTROLS:** Viruses of Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%) *Not approved in*

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*

*California for use against the following organisms:*

Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophytosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs: Not an approved use in California:** Using a 1% solution of Virkon® S Disinfectant and Virucide\*, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

### BOVINE PRODUCTION

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of *Trichophyton mentragrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis* and Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

### FOGGING (WET MISTING) – BOVINE

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until

the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)

### COMPANION ANIMALS

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. Fungi of *Trichophyton mentragrophytes*(2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes; Fungi of *Microsporum canis*.

**APPLICATION:** Use a 1% solution of Virkon® S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.



# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



Do not immerse metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum contact time.

### GREENHOUSES AND HORTICULTURE

on® S Disinfectant and Virucide\* is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays, and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. Not approved in California for use on ventilation and other equipment and water systems. It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

#### For surfaces and equipment

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon® S Disinfectant and Virucide\* per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been precleaned with water to remove organic deposits. Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.

4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

#### For clean non-porous surfaces

Pots, flats, trays: Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

Work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon® S Disinfectant and Virucide\* per gallon of clean water.

Use a dilution of 1:50 or 2.6 oz. of Virkon® S Disinfectant and Virucide\* per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

For evaporative coolers: Not approved use in California: Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon® S Disinfectant and Virucide\*. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon® S Disinfectant and Virucide\* for every gallon of cooler water.

Virkon® S Disinfectant and Virucide\* may also be used to disinfect irrigation tanks and lines. Not approved use in California: Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

### FOGGING (WET MISTING) INSTRUCTIONS – GREENHOUSE/HORTICULTURE

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)

*Not approved for this use in California* Disinfection helps to control and prevent the cross-contamination of DLE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect agricultural facilities and equipment, military facilities and equipment; airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



of harboring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins, and containers).

Spray Virkon® S Disinfectant and Virucide\* at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum contact time.

Manufactured for:  
E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA  
www.ahs.dupont.com

### DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*Not approved for this use in California.* The instructions above call for use of a 1% solution for general disinfection. However, Virkon® S Disinfectant and Virucide\* is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organisms below, Virkon® S Disinfectant and Virucide\* may be used at the following dilution rates:

Organism	Dilution Rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

### USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways. Virkon® S Disinfectant and Virucide\* may also

be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon® S Disinfectant and Virucide\* does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon® S Disinfectant and Virucide\* may only be applied using hand-held sprayers, sponges or other absorbent materials.

Do not allow Virkon® S Disinfectant and Virucide\* to pool on surfaces that may be within reach of animals. Do not allow Virkon® S Disinfectant and Virucide\* to come into direct contact with people. Allow Virkon® S Disinfectant and Virucide\* to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

Questions? Call 1-800-441-7515  
Outside the US, contact 1-302-774-1000

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RSL-22  
Rev. 05/04/11



EPA

05-13-11



# Virkon® S

## DISINFECTANT AND VIRUCIDE\*

DISINFECTANT

*For use in cleaning and  
disinfecting industrial, animal  
and agricultural facilities*

*Powder Form*

*Effective against Viruses\*,  
Bacteria, and Fungi*

### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate ..... 21.41%  
Sodium Chloride ..... 1.50%

OTHER INGREDIENTS ..... 77.09%

TOTAL INGREDIENTS: 100.00%

Equivalent to 9.75% Available Chlorine

**NET CONTENTS: 10LB (4.53KG)**

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated

7/6 54-6

### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

KEEP OUT OF REACH OF CHILDREN

**DANGER / PELIGRO**

See inside booklet for Additional Precautions



EPA REG NO 71654-6  
EPA EST. NO. 42291-GA-01

# Virkon®S

DISINFECTANT AND VIRUCIDE\*

05-13-11



## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is Corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**Corrosive statement refers to powder only not in use solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S Disinfectant and Virucide\* is effective against numerous microorganisms affecting animals: viruses\*, gram positive and gram negative bacteria, fungi (molds and yeasts – *Not Approved for this use in California*), and mycoplasma. Efficacy of the 1% solution against bacteria and viruses\* was determined in the presence of 400 ppm [200 ppm in California] AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hard water," "no soil load," and "use 2% solution."

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** For pails, jugs, bottles: Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# Virkon® S

DISINFECTANT AND VIRUCIDE\*

05-13-11



EFFECTIVE AGAINST THE  
FOLLOWING PATHOGENS:  
ANIMAL AND ZODNOTIC  
PATHOGENS

## BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*  
*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use  
against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma hyopneumonia*  
*Mycoplasma mycoides*  
*Pseudomonas mallei*  
(Glanders)  
*Pseudomonas vulgaris*  
*Streptococcus equi*  
(Strangles)  
*Tylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus*  
(Canine Hepatitis)  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*

*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use  
against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
(tested with 1% soil load  
and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*  
*Bovine Viral Diarrhea Virus*  
(no hard water)  
*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus*  
(no hard water)  
*Duck Enteritis Virus*  
*Egg Drop Syndrome*  
*Adenovirus*

*Equine Infectious Anemia*  
*Virus (Swamp Fever)*  
*Equine Arteritis Virus*  
(no hard water)  
*Equine Contagious*  
*Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus*  
(The Cough)  
*Feline Herpes Virus*  
*Feline Infectious*  
*Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine*  
*Hepatitis Virus*  
*Infective Bovine*  
*Rhinotracheitis Virus*  
(no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*

*Porcine Reproductive and*  
*Respiratory Syndrome*  
*Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's*  
*Disease) (no hard water)*  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis*  
*Virus (TGE) (no hard water)*  
*Turkey Herpes Virus*  
(no hard water)  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton*  
*mentagrophytes (2%)*

Not approved in California for use  
against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*  
*Mycoplasma hyopneumonia*  
*Trichophyton spp. (Ringworm)*  
*Trichophyton spp. (Mud Fever)*

# Virkon®S

DISINFECTANT AND VIRUCIDE\*



## Virkon®S DISINFECTANT AND VIRUCIDE\* DILUTION CHART

Fill container with desired amount of water and add Virkon®S Disinfectant and Virucide\* to achieve solution concentration.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S Disinfectant and Virucide\* for long periods - 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 sq. ft. Measuring cup provided.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Quart	0.15 ounces*	0.3 ounces	0.7 ounces
1 Gallon	0.65 ounces*	1.3 ounces	2.7 ounces
10 Gallons	6.7 ounces*	13.4 ounces	26.7 ounces
50 Gallons	33.4 ounces*	66.8 ounces	133.5 ounces

\*The 0.5% solution currently is not approved for use in California.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

### GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stalls, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.

6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

This powder formulation is easily diluted for use in manual or machine operations.

**POULTRY AND RABBIT PRODUCTION CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*,

*Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts – *Not Approved for this use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S Disinfectant and Virucide\* at 1% solution can be used for cleaning and disinfecting hatcheries, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



### FOGGING (WET MISTING) INSTRUCTIONS – POULTRY AND RATITE PRODUCTION

Follow General Instructions to remove poultry and/or animals from room to be treated.

Surfaces must be cleaned and disinfected in accordance with label directions prior to fogging. Fogging is an adjunct or supplement to normal cleaning and disinfection procedures and practices.

Close room off, so fog is confined to room to be treated.

Prepare a Virkon® S Disinfectant and Virucide at dilution of 1.0% to 2.0% in water (1:100 to 1:50).

Apply at an application rate of 1 gallon per 430 ft<sup>2</sup> of floor space. Use a mechanical or plumbed in misting system designed for water-based applications with a droplet size of greater than 50 microns, or a pressure washer/knapsack or tank sprayer to deliver fine mist. Insert the nozzle of the fogging device through a suitable opening in the room. Do not allow people to breathe or contact the fog or to enter the room until the fog has completely settled and exhausted. Do not house animals or use equipment until treatment has dried. Rinse waterers and feeders with potable water before reuse. Rinse foggers and sprayers with potable water following use.

**Note:** Individuals must avoid entering the building or room during fogging. If the building or room must be entered, then individuals entering must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long shirt sleeves, and pants.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon® S Disinfectant and Virucide\* at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon® S Disinfectant and Virucide\*. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon® S Disinfectant and Virucide\* at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

### SWINE PRODUCTION

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme* Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon® S Disinfectant and Virucide\* for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots),

and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

### FOGGING (WET MISTING) – SWINE

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### EQUINE PRODUCTION

#### BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT

**CONTROLS:** Viruses of Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%) *Not approved in*

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



*California for use against the following organisms:*

Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of Clostridial Diarrhea, Fistulous Withers (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of Dermatophytosis (Ringworm) and Dermatophylosis (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon® S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs: Not an approved use in California:** Using a 1% solution of Virkon® S Disinfectant and Virucide\*, shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

### BOVINE PRODUCTION

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of *Trichophyton mentragrophytes*(2%). *Not approved in California for use against the following organisms:* Bacteria of *Moraxella bovis* and Fungi of *Fusarium moniliforme*. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of *Haemophilus somnus*.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

### FOGGING (WET MISTING) – BOVINE

Follow General Instructions to remove poultry and/or animals from room to be treated.

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until

the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions)

### COMPANION ANIMALS

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of *Staphylococcus aureus*, *Streptococcus pyogenes*, *Klebsiella pneumoniae*, and *Pseudomonas aeruginosa*. Fungi of *Trichophyton mentragrophytes*(2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, *Leptospira canicola*, Feline parvovirus, Feline herpes; Fungi of *Microsporum canis*.

**APPLICATION:** Use a 1% solution of Virkon® S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon® S Disinfectant and Virucide\* with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*



Do not immerse metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum contact time.

### GREENHOUSES AND HORTICULTURE

on® S Disinfectant and Virucide\* is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays, and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds, or soil. Not approved in California for use on ventilation and other equipment and water systems. It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

#### For surfaces and equipment

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon® S Disinfectant and Virucide\* per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been precleaned with water to remove organic deposits. Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.
3. Apply solution with mop, sponge, power sprayer, or fogger to thoroughly wet all surfaces.

4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

#### For clean non-porous surfaces

Pots, flats, trays: Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

Work areas: Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon® S Disinfectant and Virucide\* per gallon of clean water.

Use a dilution of 1:50 or 2.6 oz. of Virkon® S Disinfectant and Virucide\* per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

For evaporative coolers: Not approved use in California: Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon® S Disinfectant and Virucide\*. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon® S Disinfectant and Virucide\* for every gallon of cooler water.

Virkon® S Disinfectant and Virucide\* may also be used to disinfect irrigation tanks and lines. Not approved use in California: Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

### FOGGING (WET MISTING) INSTRUCTIONS – GREENHOUSE/HORTICULTURE

Use a 0.5% -1.0% solution of Virkon® S Disinfectant and Virucide\* for fogging (wet misting) operations as a supplemental measure after regular cleaning and disinfecting procedures. **Not approved in California for fogging at dilutions less than 1%.** Fog (wet mist) until the area is moist using automatic foggers according to manufacturer's use directions. Rinse foggers and sprayers with potable water following use. Refer to Fogging (Wet Misting instructions).

### EMERGENCY DISEASE CONTROL (ANIMAL HEALTH)

*Not approved for this use in California* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected

# Virkon® S

## DISINFECTANT AND VIRUCIDE\*

of harboring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins, and containers).

Spray Virkon® S Disinfectant and Virucide\* at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

Do not immerse metal objects in Virkon® S Disinfectant and Virucide\* for long periods - 10 minutes is maximum contact time.

*Manufactured for:*

**E. I. du Pont de Nemours and Company**  
**DuPont Animal Health Solutions**  
**PO Box 80402**  
**Wilmington, DE 19880-0402 USA**  
**www.ahs.dupont.com**

### DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*Not approved for this use in California.* The instructions above call for use of a 1% solution for general disinfection. However, Virkon® S Disinfectant and Virucide\* is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rates specified below. If the threat is known and limited to one of the organisms below, Virkon® S Disinfectant and Virucide\* may be used at the following dilution rates:

Organism	Dilution Rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

### USES IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon® S Disinfectant and Virucide\* to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways. Virkon® S Disinfectant and Virucide\* may also

be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon® S Disinfectant and Virucide\* does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon® S Disinfectant and Virucide\* may only be applied using hand-held sprayers, sponges or other absorbent materials.

Do not allow Virkon® S Disinfectant and Virucide\* to pool on surfaces that may be within reach of animals. Do not allow Virkon® S Disinfectant and Virucide\* to come into direct contact with people. Allow Virkon® S Disinfectant and Virucide\* to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**Questions? Call 1-800-441-7515**

**Outside the US, contact: 1-302-774-1000**

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RSL-22

Rev. 05/04/11





# Virkon® S

## DISINFECTANT AND VIRUCIDE

DISINFECTANT

### Tablet and Powder Form

Effective against Viruses  
Bacteria, Fungi

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate ..... 21.41%

Sodium chloride ..... 1.50%

OTHER INGREDIENTS ..... 77.09%

TOTAL INGREDIENTS: 100.00%

Equivalent to 9.75% Available Chlorine

NOT REVIEWED  
In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated

5/4/2011

#### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

w/o Faggin  
Instruction

KEEP OUT OF REACH OF CHILDREN  
**DANGER / PELIGRO**

See Inside Booklet For Additional Precautionary Statements

## PRECAUTIONARY STATEMENT TS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. **Corrosive statement refers to powder only not in use-diluted solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma.

Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm (200 ppm in California) ADAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hardwater," "no soil load," and "use 2% solution".

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE: For pails, jugs, bottles:

Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For sachet, pouch, packet, bag:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For spray bottle with in-use solution:** Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL:

Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOO NOTIC PATHOGENS

### BACTERIA

*Actinobacillus pleuropneumoniae*

*Bacillus cereus*

*Brucella abortus*

*Campylobacter jejuni*

*Clostridium perfringens*

*Dermatophilus congolensis*

*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Mycoplasma hyopneumoniae*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma mycoides*  
*Pseudomonas mallei (Glanders)*  
*Pseudomonas vulgaris*  
*Streptococcus equi (Strangles)*  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus (Canine Hepatitis)*  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*  
*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
 (tested with 1% soil load and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*

*Bovine Viral Diarrhea Virus (no hard water)*  
*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Cointal Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus (no hard water)*  
*Duck Enteritis Virus*  
*Egg Drop Syndrome Adenovirus*  
*Equine Infectious Anemia Virus (Swamp Fever)*  
*Equine Arteritis Virus (no hard water)*  
*Equine Contagious Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus (The Cough)*  
*Feline Herpes Virus*  
*Feline Infectious Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine Hepatitis Virus*  
*Infective Bovine Rhinotracheitis Virus*  
 (no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*  
*Porcine Reproductive and Respiratory Syndrome Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's Disease)*  
 (no hard water)  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis Virus (TGE)*  
 (no hard water)  
*Turkey Herpes Virus (no hard water)*  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton mentagrophytes (2%)*

Not approved in California for use against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*

*Trichophyton spp.* (Ringworm,  
*Trichophyton spp.* (Mud Fever)

## PLANT PATHOGENS

Not approved in California for use against plant pathogens:

*Alternaria solani*

*Botrytis cinera*

*Colletotrichum coccodes*

*Didymella bryoniae*

*Fusarium oxysporum*

*Fusarium solani*

*Penicillium oxalicum*

*Phomopsis sclerotoides*

*Pyrenochaeta lycoopersici*

*Pythium aphanidermatum*

*Rhizoctonia solani*

*Sclerotinia sclerotiorum*

*Thielaviopsis basicola*

*Verticillium dahliae*

*Xanthomonas axonopodis*

## VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S for long periods – 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 square feet.

\*The 0.5% solution is currently not approved for use in California.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

## DIRECTIONS FC JSE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES:

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stall, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

## POULTRY PRODUCTION AND RATITE PRODUCTION

**CONTRDLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts, *not approved for use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon®S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon®S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

## SWINE PRODUCTION

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme*, Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## EQUINE PRODUCTION BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT

**CONTROLS** Viruses of Newcastle Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%). *Not approved in California for use against the following organisms:* Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

## USES: Stables, Horse Boxes, Box Stalls, Tack,

**Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon®S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs:** *Not an approved use in California:* Using a 1% solution of Virkon®S, Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

## BOVINE PRODUCTION

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of Trichophyton mentragrophytes(2%). *Not approved in California for use against the following organisms:* Bacteria of Moraxella bovis; Fungi of Fusarium monilliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of Haemophilus somnus.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## COMPANION ANIMALS

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae, and Pseudomonas aeruginosa. Fungi of Trichophyton mentragrophytes (2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, Leptospira canicola, Feline parvovirus, Feline herpes; Fungi of Microsporium canis.

**APPLICATION:** Use a 1% solution of Virkon®S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S Disinfectant and Virucide\* for long periods – 10 minutes is maximum contact time.

## GREENHOUSES & HORTICULTURE

Virkon®S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds or soil.

*Not approved in California for use on ventilation and other equipment and water systems.*

It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

## FOR SURFACES AND EQUIPMENT

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. *Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.*
3. Apply solution with mop, sponge, or power sprayer to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

## FOR CLEAN NON-POROUS SURFACES

**Pots, flats, trays:** Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

**Work areas:** Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon®S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

**For evaporative coolers:** *Not approved for use in California.* Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon®S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon®S for every gallon of cooler water. Virkon®S may also be used to disinfect irrigation tanks and lines. *Not an* 175

*approved use in California.* Run a 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

## **AQUACULTURE**

*(Not approved for this use in California):* Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

## **EMERGENCY DISEASE CONTROL**

**(ANIMAL HEALTH)** *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease

Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon®S to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harbouring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers). Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S for long periods - 10 minutes is maximum contact time.

## **DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS**

*(Not approved for this use in California):*

The instructions above call for use of a 1% solution for general disinfection. However, Virkon®S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

<b>Organism</b>	<b>Dilution rate</b>	<b>Oz./Gal.</b>
PCV2 Virus (PMWS)	1:200	0.7

## **USE IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS**

Use a 1% solution of Virkon®S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways.

Virkon®S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/ boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon®S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon®S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon®S to pool on surfaces that may be within reach of animals. Do not allow Virkon®S to come into direct contact with people. Allow Virkon®S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

*Manufactured for:*  
E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA

**Questions? Call 1-800-441-7515**  
**Outside the US, contact: 1-302-774-1000**

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# Virkon® S

## DISINFECTANT AND VIRUCIDE

DISINFECTANT

### Tablet and Powder Form

*Effective against Viruses  
Bacteria, Fungi*

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate . . . . . 21.41%

Sodium chloride . . . . . 1.50%

OTHER INGREDIENTS . . . . . 77.09%

**TOTAL INGREDIENTS:** 100.00%

Equivalent to 9.75% Available Chlorine

NOT REVIEWED

In accordance with PR Notice 82-2.  
Based on Draft Labeling Dated 5/4/2011

#### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

W/O Fogo  
INSTRUCTION

KEEP OUT OF REACH OF CHILDREN  
**DANGER / PELIGRO**

See Inside Booklet For Additional Precautionary Statements

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. **Corrosive statement refers to powder only not in use-diluted solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma.

Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm (200 ppm in California) AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hardwater," "no soil load," and "use 2% solution".

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE: For pails, jugs, bottles:

Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For sachet, pouch, packet, bag:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For spray bottle with in-use solution:** Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOOLOGICAL PATHOGENS

### BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*

*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Mycoplasma hyopneumoniae*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma mycoides*  
*Pseudomonas mallei (Glanders)*  
*Pseudomonas vulgaris*  
*Streptococcus equi (Strangles)*  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus (Canine Hepatitis)*  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*  
*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
 (tested with 1% soil load and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*

*Bovine Viral Diarrhea Virus (no hard water)*  
*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus (no hard water)*  
*Duck Enteritis Virus*  
*Egg Drop Syndrome Adenovirus*  
*Equine Infectious Anemia Virus (Swamp Fever)*  
*Equine Arteritis Virus (no hard water)*  
*Equine Contagious Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus (The Cough)*  
*Feline Herpes Virus*  
*Feline Infectious Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine Hepatitis Virus*  
*Infective Bovine Rhinotracheitis Virus*  
 (no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*  
*Porcine Reproductive and Respiratory Syndrome Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's Disease)*  
 (no hard water)  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis Virus (TGE)*  
 (no hard water)  
*Turkey Herpes Virus (no hard water)*  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton mentagrophytes (2%)*

Not approved in California for use against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporum canis*

*Trichophyton spp. (Ringworm)*

*Trichophyton spp. (Mud Fever)*

## PLANT PATHOGENS

Not approved in California for use against plant pathogens:

*Alternaria solani*

*Botrytis cinera*

*Colletotrichum coccodes*

*Didymella bryoniae*

*Fusarium oxysporum*

*Fusarium solani*

*Penicillium oxalicum*

*Phomopsis sclerotoides*

*Pyrenochaeta lycoopersici*

*Pythium aphanidermatum*

*Rhizoctonia solani*

*Sclerotinia sclerotiorum*

*Thielaviopsis basicola*

*Verticillium dahliae*

*Xanthomonas axonopodis*

## VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S for long periods – 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 square feet.

\*The 0.5% solution is currently not approved for use in California.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES:

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stall, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

## POULTRY PRODUCTION AND RATITE PRODUCTION

**CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts, *not approved for use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon®S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon®S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

## SWINE PRODUCTION

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentagrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme*, Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## EQUINE PRODUCT

### BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT

**CONTROLS** Viruses of Newcastle Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentagrophytes* (at 2%). *Not approved in California for use against the following organisms:* Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

### USES: Stables, Horse Boxes, Box Stalls, Tack,

**Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon®S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs:** *Not an approved use in California:* Using a 1% solution of Virkon®S, Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

## BOVINE PRODUCTION

**CONTROLS:** Bovine Adenovirus Type 4; Fungi of Trichophyton mentragrophytes(2%). *Not approved in California for use against the following organisms:* Bacteria of Moraxella bovis; Fungi of Fusarium moniliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of Haemophilus somnus.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## COMPANION ANIMALS

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae, and Pseudomonas aeruginosa. Fungi of Trichophyton mentragrophytes (2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, Leptospira canicola, Feline parvovirus, Feline herpes; Fungi of Microsporum canis.

**APPLICATION:** Use a 1% solution of Virkon®S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S Disinfectant and Virucide\* for long periods – 10 minutes is maximum contact time.

## GREENHOUSES & HORTICULTURE

Virkon®S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds or soil.

*Not approved in California for use on ventilation and other equipment and water systems.*

It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

## FOR SURFACES AND EQUIPMENT

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. *Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.*
3. Apply solution with mop, sponge, or power sprayer to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

## FOR CLEAN NON-POROUS SURFACES

**Pots, flats, trays:** Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

**Work areas:** Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon®S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

**For evaporative coolers:** *Not approved for use in California.* Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon®S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon®S for every gallon of cooler water. Virkon®S may also be used to disinfect irrigation tanks and lines. *Not an*

*approved use in California.* Rinse with 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

## **AQUACULTURE**

*(Not approved for this use in California):* Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

## **EMERGENCY DISEASE CONTROL**

**(ANIMAL HEALTH)** *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease

Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon®S to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harbouring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers). Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S for long periods - 10 minutes is maximum contact time.

## DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS

*(Not approved for this use in California):*

The instructions above call for use of a 1% solution for general disinfection. However, Virkon®S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

Organism	Dilution rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

## USE IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS

Use a 1% solution of Virkon®S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways.

Virkon®S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/ boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon®S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon®S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon®S to pool on surfaces that may be within reach of animals. Do not allow Virkon®S to come into direct contact with people. Allow Virkon®S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

*Manufactured for:*

E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA

**Questions? Call 1-800-441-7515**

**Outside the US, contact: 1-302-774-1000**

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# Virkon® S

## DISINFECTANT AND VIRUCIDE



DISINFECTANT

### Tablet and Powder Form

*Effective against Viruses  
Bacteria, Fungi*

#### ACTIVE INGREDIENTS:

Potassium peroxymonosulfate . . . . . 21.41%

Sodium chloride . . . . . 1.50%

**OTHER INGREDIENTS . . . . . 77.09%**

**TOTAL INGREDIENTS: 100.00%**

*Equivalent to 9.75% Available Chlorine*

NOT REVIEWED  
In accordance with PR Notice 82-2,  
Based on Draft Labeling Dated 5/4/2011

#### FIRST AID

**IF IN EYES:** Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control center or doctor for further treatment advice.

**IF SWALLOWED:** Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a Poison Control Center or doctor or going for treatment.

W/O Foggii  
Instruction

For 24-hour emergency information on this product, call 1-800-441-3637 (US & Canada) or 1-302-774-1139 (all other areas).

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage.

KEEP OUT OF REACH OF CHILDREN  
**DANGER / PELIGRO**

See Inside Booklet For Additional Precautionary Statements

## PRECAUTIONARY STATEMENT S

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**DANGER.** Powder is corrosive. Causes irreversible eye damage or skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin or on clothing. Wear goggles (or face shield). Wear protective clothing (long sleeve shirt and long pants, socks plus shoes and chemical resistant gloves such as water proof gloves). Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. **Corrosive statement refers to powder only not in use-diluted solution.**

### ENVIRONMENTAL HAZARDS:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

### BROAD SPECTRUM DISINFECTANT:

Virkon®S is effective against numerous microorganisms affecting animals: viruses, gram positive and gram negative bacteria, fungi (molds and yeasts – Not Approved for this use in California), and mycoplasma.

Efficacy of the 1% solution against bacteria and viruses was determined in the presence of 400 ppm (200 ppm in California) AOAC hard water and 5% organic material in most cases. The exceptions are noted with qualifiers, e.g., "no hardwater," "no soil load," and "use 2% solution".

This product has demonstrated effectiveness against influenza A virus and is expected to inactivate all influenza A viruses including Pandemic 2009 H1N1 influenza A virus.

**STORAGE AND DISPOSAL:** Do not contaminate water, food, or feed by storage and disposal.

### PESTICIDE STORAGE: For pails, jugs, bottles:

Store in a cool dry place in tightly closed container. Keep out of reach of children. Always replace lid after use. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For sachet, pouch, packet, bag:** Store in a cool dry place. Keep out of reach of children. Retain dessicant canister with product during storage. Do not mix this product with other chemicals.

**For spray bottle with in-use solution:** Store in a cool dry place. Keep out of reach of children. Do not mix this product with other chemicals.

**PESTICIDE DISPOSAL:** Pesticide wastes, may be hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## EFFECTIVE AGAINST THE FOLLOWING PATHOGENS: ANIMAL AND ZOONOTIC PATHOGENS

### BACTERIA

*Actinobacillus pleuropneumoniae*  
*Bacillus cereus*  
*Brucella abortus*  
*Campylobacter jejuni*  
*Clostridium perfringens*  
*Dermatophilus congolensis*

*Escherichia coli*  
*Klebsiella pneumoniae*  
*Mycoplasma gallisepticum*  
*Mycoplasma hyopneumoniae*  
*Pasteurella multocida*  
*Pseudomonas aeruginosa*  
*Salmonella enterica*  
*Salmonella typhimurium*  
*Shigella sonnei*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Streptococcus pyogenes*  
*Streptococcus suis*

Not approved in California for use against the following bacteria:

*Bordetella avium*  
*Bordetella bronchiseptica*  
*Fistulous withers (Poll Evil)*  
*Haemophilus somnus*  
*Helicobacter pylori*  
*Listeria monocytogenes*  
*Moraxella bovis (Pink Eye)*  
*Mycoplasma mycoides*  
*Pseudomonas mallei (Glanders)*  
*Pseudomonas vulgaris*  
*Streptococcus equi (Strangles)*  
*Taylorella equigenitalis*  
*Treponema hyodysenteriae*

## VIRUSES

*Avian Influenza Virus*  
*Avian Laryngotracheitis Virus*  
*Bovine Adenovirus Type 4*  
*Canine Adenovirus (Canine Hepatitis)*  
*Canine Parvovirus*  
*Equine Herpes Virus (Type 1)*  
*Equine Herpes Virus (Type 3)*  
*Equine Influenza Virus (Type A)*  
*Feline Calicivirus*  
*Feline Panleukopenia Virus*  
*Feline Rhinotracheitis Virus*  
*Newcastle Disease Virus*  
*Simian virus (SV40 Virus)*

Not approved in California for use against the following viruses:

*Adenovirus Pneumonia*  
*African Horse Sickness Virus*  
*African Swine Fever Virus*  
 (tested with 1% soil load and 342 ppm hard water)  
*Bovine Polyoma Virus*  
*Bovine Pseudocowpox Virus*

*Bovine Viral Diarrhea Virus (no hard water)*  
*Calf Rotavirus (no hard water)*  
*Canine Coronavirus*  
*Canine Parainfluenza Virus*  
*Chicken Anemia Virus*  
*Coital Exanthema Virus*  
*Distemper Virus*  
*Duck Adenovirus (no hard water)*  
*Duck Enteritis Virus*  
*Egg Drop Syndrome Adenovirus*  
*Equine Infectious Anemia Virus (Swamp Fever)*  
*Equine Arteritis Virus (no hard water)*  
*Equine Contagious Abortion Virus*  
*Equine Papillomatosis Virus*  
*Equine Influenza Virus (The Cough)*  
*Feline Herpes Virus*  
*Feline Infectious Peritonitis Virus*  
*Feline Parvovirus*  
*Foot and Mouth Disease Virus*  
*Hog Cholera Virus*  
*Infectious Bronchitis Virus*  
*Infectious Bursal Disease Virus*  
*Infectious Canine Hepatitis Virus*  
*Infective Bovine Rhinotracheitis Virus*  
 (no hard water)  
*Leptospira Canicola Virus*  
*Maedi-Visna Virus*  
*Marek's Disease Virus*  
*Mouse Parvovirus*  
*PCV2 Virus (PMWS)*  
*Porcine Parvovirus*  
*Porcine Reproductive and Respiratory Syndrome Virus (PRRS)*  
*Pseudorabies Virus (Aujeszky's Disease)*  
 (no hard water)  
*Rotaviral Diarrhea Virus*  
*Swine Influenza Virus*  
*Swine Vesicular Disease Virus*  
*Transmissible Gastroenteritis Virus (TGE)*  
 (no hard water)  
*Turkey Herpes Virus (no hard water)*  
*Turkey Rhinotracheitis Virus*  
*Vesicular Stomatitis Virus*

## FUNGI

*Trichophyton mentagrophytes (2%)*

Not approved in California for use against the following fungi:

*Aspergillus fumigatus*  
*Fusarium moniliforme*  
*Microsporium canis*

*Trichophyton* spp. (Ringworm)

*Trichophyton* spp. (Mud Fever)

## PLANT PATHOGENS

Not approved in California for use against plant pathogens:

*Alternaria solani*

*Botrytis cinera*

*Colletotrichum coccodes*

*Didymella bryoniae*

*Fusarium oxysporum*

*Fusarium solani*

*Penicillium oxalicum*

*Phomopsis sclerotoides*

*Pyrenochaeta lycoopersici*

*Pythium aphanidermatum*

*Rhizoctonia solani*

*Sclerotinia sclerotiorum*

*Thielaviopsis basicola*

*Verticillium dahliae*

*Xanthomonas axonopodis*

## VIRKON®S DILUTION CHART

Fill container with desired amount of water and add Virkon®S powder or tablet(s) to achieve solution concentration. For a 1% solution, add one (1) tablet to one pint of water or one sachet to one gallon of water.

Solutions are stable for 7 days. Do not soak metal objects in Virkon®S for long periods – 10 minutes is maximum necessary contact time. One gallon of solution is sufficient to treat 135 square feet.

\*The 0.5% solution is currently not approved for use in California.

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Gallon		1 Sachet	2 Sachets
2 Gallons	1 Sachet	2 Sachets	4 Sachets

Quantity of Water	0.5% Solution*	1% Solution	2% Solution
1 Pint		1 Tablet	2 Tablets
1 Gallon	4 Tablets	8 Tablets	16 Tablets

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

## GENERAL INSTRUCTIONS – POULTRY AND FARM PREMISES:

1. Remove all poultry or other animals and feeds from premises, trucks or other vehicles, coops, crates or other enclosures.
2. Remove all litter droppings and manure from floors, walls and surfaces of barns pens, stall, chutes and other facilities and fixtures occupied or traversed by poultry or other animals.
3. Empty all troughs, racks, and other feeding and watering appliances.
4. Thoroughly clean all surfaces with soap or detergent and rinse with water.
5. Saturate surfaces with the disinfecting solution for a period of 10 minutes.
6. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.
7. Ventilate buildings, cars, boats, coops, and other closed spaces. Do not house poultry or livestock or employ equipment until treatment has been absorbed, set, or dried.
8. Thoroughly scrub treated feed racks, mangers, troughs, automatic feeders, fountains, and waterers with soap or detergent and rinse with potable water before reuse.

## POULTRY PRODUCTION AND RATITE PRODUCTION

**CONTROLS:** Viruses of Newcastle Disease, Avian Laryngotracheitis and Avian Influenza; Bacteria of *Streptococcus pyogenes*, *Klebsiella pneumoniae*, *Escherichia coli*, *Salmonella typhimurium*, *Salmonella enterica*, *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Mycoplasma gallisepticum*. *Not approved in California for use against the following organisms:* Viruses of Infectious Bursal Disease, Infectious Bronchitis Virus, Marek's Disease, Egg Drop Syndrome, Turkey Herpes Virus, Duck Viral Enteritis; FUNGI (molds and yeasts, *not approved for use in California*), *Aspergillus flavus*, Fungi of *Aspergillus fumigatus* and Bacteria of *Bordetella avium*, *Helicobacter pylori*.

**HATCHERIES:** Virkon®S at 1% solution can be used for cleaning and disinfecting hatchers, setters, evaporative coolers, humidifying systems, ceiling fans, chicken houses, transfer trucks, trays, and plastic chick boxes. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**BROILER/BREEDER HOUSES:** Follow General Instructions to remove poultry and pre-clean area to be treated. Spray floors and walls with Virkon®S at 1% solution. Thoroughly wash waterers and feeders with a 1% solution of Virkon®S. After contact for 10 minutes, rinse with potable water. Do not house poultry or use equipment until treatment has dried.

**PROCESSING PLANTS:** Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings and floors. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry.

## SWINE PRODUCTION

**CONTROLS:** Bacteria of; *Actinobacillus Pleuropneumoniae* and *Clostridium perfringens*; Fungi of *Trichophyton mentragrophytes* (2%). *Not approved in California for use against the following organisms:* Viruses of Hog Cholera, Swine influenza, Porcine Parvovirus, Porcine Reproductive and Respiratory Syndrome Virus (PRRS); Pseudorabies, Rotoviral Diarrhea, African Swine Fever, Fungi of *Fusarium moniliforme*, Foot and Mouth Disease and Bacteria of *Treponema hyodysenteriae*.

Follow General Instructions to remove swine and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide for cleaning and disinfecting farrowing units, nurseries, finisher houses, processing plants, and agricultural production equipment such as trucks, waterproof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## EQUINE PRODUCT!

### BROAD SPECTRUM EQUINE DISINFECTANT/ DETERGENT/WASH FOR CLEANING AND DISINFECTING STABLES AND EQUIPMENT

**CONTROLS** Viruses of Newcastle Equine herpes virus Type 1 and Type 3 and Equine Influenza. Bacteria of; *Brucella abortus*, *Clostridium perfringens*, *Dermatophilus congolensis* (at 2%), *Pseudomonas aeruginosa*, *Salmonella typhimurium* and *Staphylococcus aureus*. Fungi of *Trichophyton mentragrophytes* (at 2%). *Not approved in California for use against the following organisms:* Fungi of *Fusarium moniliforme*. Viruses of African Horse Sickness, Equine Viral Arteritis (Pink Eye), Coital Exanthema, Myeloencephalopathy, Rhinopneumonitis, Equine Contagious Abortion, Equine Papillomatosis, Equine Infectious anemia (Swamp Fever), Adenovirus Pneumonia, Equine Influenza (The Cough) and Rhinitis; Bacteria of *Clostridial Diarrhea*, *Fistulous Withers* (Poll Evil), *Taylorella equigenitalis*, *Bordetella bronchiseptica*, *Streptococcus equi* (Strangles) and *Pseudomonas mallei* (Glanders); Fungi of *Dermatophytosis* (Ringworm) and *Dermatophylosis* (Mud Fever).

**APPLICATIONS:** For cleaning and disinfecting all hard, non-porous surfaces, equipment, utensils and instruments in Veterinary practices, kennels, stables, catteries, etc.

**USES: Stables, Horse Boxes, Box Stalls, Tack, Equipment, and Feed Rooms:** Follow general instructions to remove animals from area to be treated. Thoroughly clean and dry [dry clean] surfaces, then wash the area manually or with pressure washer with a 1% Virkon®S Disinfectant and Virucide\* solution, saturating surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

**To Clean Blankets, Saddle Pads and Rugs:** *Not an approved use in California:* Using a 1% solution of Virkon®S, Shampoo by hand or spray lightly with a hand-sprayer and leave to dry. Shake or vacuum to remove residue.

## BOVINE PRODUCTION

**CONTROLS:** Bovine Adenovirus type 4; Fungi of Trichophyton mentragrophytes(2%). *Not approved in California for use against the following organisms:* Bacteria of Moraxella bovis; Fungi of Fusarium moniliforme. Viruses of Calf rotavirus, Infectious Bovine Rhinotracheitis, Pseudorabies, Foot and Mouth Disease and Bacteria of Haemophilus somnus.

Follow General Instructions to remove livestock and pre-clean area to be treated. Use a 1% solution of Virkon®S Disinfectant and Virucide\* to clean and disinfect areas associated with bovine housing stabling, hospital quarantine pens, feedlot facilities, and agricultural production equipment: such as trucks, water-proof footwear (such as rubber boots), and associated livestock equipment and instruments. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse.

## COMPANION ANIMALS

**CONTROLS:** Viruses of Canine Parvovirus and Feline calicivirus; Bacteria of Staphylococcus aureus, Streptococcus pyogenes, Klebsiella pneumoniae, and Pseudomonas aeruginosa. Fungi of Trichophyton mentragrophytes (2%). *Not approved in California for use against the following organisms:* Viruses of Distemper, Leptospira canicola, Feline parvovirus, Feline herpes; Fungi of Microsporum canis.

**APPLICATION:** Use a 1% solution of Virkon®S Disinfectant and Virucide\* as a "one step" cleaning and disinfecting procedure (Remove Gross filth and heavy soil deposits before application of the disinfecting/cleaning solution) for all surfaces, equipment, instruments, utensils and cages, caging systems, within or associated with Veterinary Medical Hospitals, animal infectious disease wards, quarantine areas, Humane Society facilities, laboratory animal quarters, grooming and boarding facilities, kennels, catteries and animal transportation vehicles. Saturate surfaces with a 1% solution of Virkon®S with a cloth, mop, mechanical spray, or sponge for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S Disinfectant and Virucide\* for long periods – 10 minutes is maximum contact time.

## GREENHOUSES AND HORTICULTURE

Virkon®S is intended to disinfect inanimate environmental surfaces: such as floors, walls, glasshouse structures, ventilation and other equipment, utensils, trays and other containers, water systems, evaporative coolers, storage rooms, and vehicles in greenhouses and other horticultural settings prior to introduction or reintroduction of plants, seeds or soil.

*Not approved in California for use on ventilation and other equipment and water systems.*

It is not intended to directly affect agricultural production and must not be applied to plants, seeds, or soil. If necessary, remove or cover these items prior to use of the product.

## FOR SURFACES AND EQUIPMENT

1. Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt.
2. Use a dilution of 1:100 or 1.3 oz. Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits. *Not approved in California for use at 1:50 dilution on surfaces that have not been pre-cleaned with water to remove organic deposits.*
3. Apply solution with mop, sponge, or power sprayer to thoroughly wet all surfaces.
4. Heavy growth of algae or fungi may have to be scrubbed off following application.
5. Reapply as often as needed for control.

## FOR CLEAN NON-POROUS SURFACES

**Pots, flats, trays:** Use a dilution of 1:100 or 1.3 oz. per gallon of clean water. Soak tools to ensure complete coverage.

**Work areas:** Sweep and remove all plant debris. Use power sprayer to wash all surfaces to remove loose dirt. Use a dilution of 1:100 or 1.3 oz. of Virkon®S per gallon of clean water. Use a dilution of 1:50 or 2.6 oz. of Virkon®S per gallon of clean water if surfaces that are to be treated have not been pre-cleaned with water to remove organic deposits.

**For evaporative coolers:** *Not approved for use in California.* Treat existing algae and slime-contaminated surfaces with a 1:100 dilution of Virkon®S. Treat cooler water every week with a dilution of 1:200 or 0.65 oz. of Virkon®S for every gallon of cooler water. Virkon®S may also be used to disinfect irrigation tanks and lines. *Not an*

*approved use in California.* Run 1% solution through the system or soak equipment in a 1% solution. Let stand for ten minutes and flush system with clean water after treatment.

## **AQUACULTURE**

*(Not approved for this use in California):* Virkon®S intended to disinfect inanimate environmental surfaces associated with aquaculture including vehicles, nets, boots, waders, dive suits, hoses, brushes and other similar equipment. Virkon®S may also be used in foot dips. Virkon®S must not be applied directly to water.

Equipment used in separate sites, tanks, ponds in aquacultural settings should be disinfected before each new use by soaking for 20-30 minutes in a 1% Virkon®S solution followed by a water rinse.

## **EMERGENCY DISEASE CONTROL**

**(ANIMAL HEALTH)** *(Not approved for this use in California):* Disinfection helps to control and prevent the cross-contamination of OIE List A organisms including Foot and Mouth Disease Virus, African Horse Sickness Virus, Vesicular Stomatitis Virus, Classical Swine Fever Virus (Hog Cholera Virus), African Swine Fever Virus, Newcastle Disease Virus, and Highly Pathogenic Avian Influenza Virus, Swine Vesicular Disease

Virus, and Mycoplasma mycoides (Contagious Bovine Pleuropneumonia).

Use a 1% solution of Virkon®S to clean and disinfect agricultural facilities and equipment, military facilities and equipment, airport facilities and equipment, port facilities and equipment, rail facilities and equipment, quarantine facilities and equipment, slaughter facilities and equipment, and other shipping facilities and equipment where animals or soils suspected of harbouring foot and mouth disease virus might have been previously present.

Within these facilities, treated objects include but are not limited to vehicles, farm equipment (including tractors, ploughing shares, cars and trucks, farm engines, harvesters, loaders, mowers, tillers and slaughter machinery), military equipment (including tanks and troop carriers), and shipping equipment (pallets, bins and containers). Spray Virkon®S at 1% solution to disinfect and clean walls, ceilings, floors, decks, container surfaces, vehicles, wheels, water proof footwear (such as rubber boots), livestock equipment, utensils and instruments. Saturate surfaces for a period of 10 minutes. Allow surfaces to air dry. Rinse waterers and feeders with potable water before reuse. Do not immerse metal objects in Virkon®S for long periods - 10 minutes is maximum contact time.

## **DISINFECTION LIMITED TO SPECIFIC AND KNOWN DISEASE ORGANISM PCV2 VIRUS**

*(Not approved for this use in California):*

The instructions above call for use of a 1% solution for general disinfection. However, Virkon®S is an effective disinfectant for all hard, non-porous surfaces against the following organism at the dilution rate specified below. If the threat is known and limited to the organism below, Virkon®S may be used at the following dilution rate:

Organism	Dilution rate	Oz./Gal.
PCV2 Virus (PMWS)	1:200	0.7

## **USE IN FACILITIES USED FOR TEMPORARY CONFINEMENT OF ANIMALS**

Use a 1% solution of Virkon®S to clean and disinfect inanimate surfaces associated with facilities used for the temporary confinement of animals. Sites may include, but are not limited to, barns, sheds, stables, pens, cages, and associated access alleys or walkways.

Virkon®S may also be used to clean and disinfect equipment related to the maintenance of animals found at fairs, exhibitions, animal auction yards, animal show/ boarding facilities, or other similar agricultural facilities designed for the temporary housing of animals.

To ensure that Virkon®S does not come in direct contact with animals, feed, or water, remove animals from treatment site and either remove or cover feed and water apparatus. To ensure precise application on inanimate surfaces, Virkon®S may only be applied using hand-held sprayers, sponges or other absorbent materials. Do not allow Virkon®S to pool on surfaces that may be within reach of animals. Do not allow Virkon®S to come into direct contact with people. Allow Virkon®S to completely dry prior to housing animals, using equipment, or allowing people to contact treated sites.

*Manufactured for:*  
E. I. du Pont de Nemours and Company  
DuPont Animal Health Solutions  
PO Box 80402  
Wilmington, DE 19880-0402 USA

**Questions? Call 1-800-441-7515**  
**Outside the US, contact: 1-302-774-1000**

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# Material Sent for Data Extraction

Reg # 71654-6

Description: \_\_\_\_\_

☐ Material(s) Sent to Data Extraction Contractors:

☒ New Stamped Label Dated 5/4/11

☐ Notification Dated \_\_\_\_\_

☐ New CSF(s) Dated \_\_\_\_\_

☐ Other: \_\_\_\_\_

☐ Decision #: 447765

☐ Other Action/Comments: \_\_\_\_\_

\_\_\_\_\_  
Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: Stacey Grigsby

Phone: 305-62446 Division: AD

Date: 5/4/11

## Antimicrobial Division/Regulatory Management      inches I/II

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# Attention PM Team:

For additional CSFs,  
check in earlier  
volumes including  
Imaged volumes.

